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ABSTRACT

In light of the accelerated rate of change in vocational education, research was done to clarify relationships among teacher attitudes which would assist administrators in facilitating change. This study investigated the relationship between morale and change orientation of Alabama vocational education teachers. The Purdue Teacher Opinionaire and Russell's Change Orientation Instrument were administered to 936 teachers selected randomly from five vocational education service areas in Alabama. Findings indicated there is a small relationship between morale and change orientation, the largest measured association being between change orientation and satisfaction with teaching. Conclusions were that teachers with high morale tend to have more positive attitudes toward change and that teacher morale is regulated by a number of variables including daily student load, adequacy of facilities and equipment, and age and education of the teacher. Recommendations were made regarding need for further morale and change orientation studies to generate additional information covering a broader range of personnel and influencing factors. (BL)

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RELATIONSHIPS BETWEEN THE MORALE AND CHANGE ORIENTATION OF VOCATIONAL EDUCATION TEACHERS IN ALABAMA

RESEARCH COORDINATING UNIT
DIVISION OF VOCATIONAL EDUCATION
ALABAMA STATE DEPARTMENT OF EDUCATION
MONTGOMERY, ALABAMA 36130

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FOREWORD

Vocational education has been profoundly affected by the rapidly changing nature of society and specifically that of the changing nature of jobs within industry. These changes necessitate that many existing vocational programs be redirected and many new ones established. Assessment of this trend indicates that teachers today and in the future must be more change oriented.

The study reported herein was conducted to investigate the relationships between morale and change orientation among vocational education teachers in Alabama. Although the setting and population of the study were within the Alabama vocational education system, the information obtained may have applicability to similiar groups and settings in other states.

We are indebted to Glenward L. Spivey of the Research Coordinating Unit for conducting the study and developing this report. This study was submitted as a dissertation to Auburn University. Appreciation is expressed to Robert W. Montgomery, Richard A. Baker, James Bob Drake, J. Boyd Scebra, and Gerald W. Halpin, members of the dissertation committee, for their contributions to the study.

S. Douglas Patterson, Director
Research Coordinating Unit

TABLE OF CONTENTS

LIST OF TABLES vi

I. THE PROBLEM AND ITS SIGNIFICANCE 1

Statement of the Problem
Significance of the Study
Scope and Limitations
Definition of Terms

II. REVIEW OF RESEARCH AND RELATED LITERATURE 11

Morale
Development of the Concept of Morale
Morale and Performance
Morale and Age
Morale and Years Experience
Morale and Administrator-Teacher Interactions
Morale and Other Factors
Change
Change Process
Change Orientation

III. DESIGN OF THE STUDY 34

Population
Instrumentation
Data Collection
Research Hypotheses
Treatment of Data

IV. DISCUSSION 46

V. SUMMARY, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS. 84

Summary of the Findings
Conclusions
Implications
Recommendations

BIBLIOGRAPHY 95

APPENDIX 103

LIST OF TABLES

1. Sample Size by Service Area 35

2. Coefficient Alpha for Purdue Teacher Opinionaire Factors by Vocational Education Service Area, Alabama 1976 37

3. Responses by Service Area 41

4. Correlations Between Morale Scores on Purdue Teacher Opinionaire Factors and Change Orientation Scores for Vocational Teachers by Service Area, Alabama 1976 47

5. Differences Between Morale Scores on Purdue Teacher Opinionaire Factors for Vocational Teachers by Service Areas, Alabama 1976 50

6. Differences Between Morale Scores on Purdue Teacher Opinionaire Factors for Vocational Teachers by Level of Education, Alabama 1976 52

7. Differences Between Morale Scores on Purdue Teacher Opinionaire Factors for Vocational Teachers by Location of Teacher, Alabama 1976 55

8. Differences Between Morale Scores on Purdue Teacher Opinionaire Factors for Vocational Teachers by Education Level and Teaching Location, Alabama 1976 56

9. Differences Between Morale Scores on Purdue Teacher Opinionaire Factors for Vocational Teachers by Advisory Committee Activity, Alabama 1976 58

10. Differences Between Morale Scores on Purdue Teacher Opinionaire Factors for Vocational Teachers by Adult Program Organization, Alabama 1976 60

11. Differences Between Morale Scores on Purdue Teacher Opinionaire Factors for Vocational Teachers by Adequacy of Equipment, Alabama 1976 62

12. Differences Between Morale Scores on Purdue Teacher Opinionaire Factors for Vocational Teachers by Adequacy of Facilities, Alabama 1976 64

13. Differences Between Morale Scores on Purdue Teacher Opinionaire Factors for Vocational Teachers by Geographical Area Where School is Located, Alabama 1976 66

14. Correlations Between Morale Scores and Selected Independent Variable Measures for 806 Vocational Teachers, Alabama 1976 . 67

15. Differences Between Morale Scores on Purdue Teacher Opinionaire Factors for Vocational Teachers by Age, Alabama 1976 69

16. Differences Between Morale Scores on Purdue Teacher Opinionaire Factors for Vocational Teachers by Years of Experience, Alabama 1976 70

17. Differences Between Morale Scores on Purdue Teacher Opinionaire Factors for Vocational Teachers by Daily Student Load, Alabama 1976 71

18. Differences Between Morale Scores on Purdue Teacher Opinionaire Factors for Vocational Teachers by Total Student Population Grades 9-12, Alabama 1976 74

19. Analysis of Change Orientation Scores of Vocational Teachers by Service Areas, Alabama 1976 75

20. Analysis of Change Orientation Scores of Vocational Teachers by Level of Education, Alabama 1976 76

21. Analysis of Change Orientation Scores of Vocational Teachers by Teaching Location, Alabama 1976 77

22. Analysis of Change Orientation Scores of Vocational Teachers by Activity of Advisory Council, Alabama 1976 78

23. Analysis of Change Orientation Scores of Vocational Teachers by Adult Program Organization, Alabama 1976 79

24. Analysis of Change Orientation Scores of Vocational Teachers by Adequacy of Equipment, Alabama 1976 80

25. Analysis of Change Orientation Scores of Vocational Teachers by Adequacy of Facilities, Alabama 1976 81

26. Analysis of Change Orientation Scores of Vocational Teachers by Geographical Area Where School is Located, Alabama 1976 82

27. Correlations Between Change Orientation Scores and Selected Variable Measures for 806 Vocational Teachers, Alabama 1976 83

I. THE PROBLEM AND ITS SIGNIFICANCE

Dynamic forces in society are working with incredible speed today. Change is occurring so rapidly that new knowledge and technology confront man before he has fully understood past achievements. Toffler (1970) talks of this accelerated change and man's striving to adjust to it. Many people are discussing decision-making settings characteristic of what the Phi Delta Kappan National Study Committee on Evaluation (1971) calls "neomobilism." Attitudes toward change and adjustments that are necessary to cope with change become very important to educational administrators as they administer programs under their supervision. Many teachers will make necessary changes enthusiastically, others reluctantly, others not at all. The rate and effectiveness of teachers' adjustment to change have particular implications for administrators since the largest single item of the school budget is for personnel services.

Vocational education has been profoundly affected by the forces of change. Many changes which occurred brought vocational education into the spotlight. Vocational education did not arrive at center stage without finding and applying new methods and programs. As one looks into the future, vocational education must develop ways of training people for a wide variety of jobs which do not yet exist. The adjustments needed to meet this challenge will require change at an increasing rate.

The effectiveness with which accelerated change is implemented will depend to a large degree on attitudes and morale of persons involved.

Educators have expressed concern about teacher welfare and teacher adjustment to school and community environment because of assumed importance of teacher morale on student achievement and student learning. Industry has been concerned for many years about the effect of employee morale on the employee's performance. One need only to examine the expenditure of money for training programs oriented toward human relations and morale to be convinced of this concern. Herzberg (1959) answers for industry the question, "Why study job attitudes?"

> To industry, the pay off for a study of job attitudes would be increased productivity, decreased turnover, decreased absenteeism, and smoother working relations. To the community, it might mean a decreased bill for psychological casualties and an increase in the over-all productive capacity of our industrial plant and in the proper utilization of human resources. To the individual, an understanding of the forces that lead to improved morale would bring greater happiness and greater self-realization. (p. ix)

Gregory (1959) states that "most executives are now convinced that there is a positive correlation between morale and the profit and loss statement." (p. 32) Herzberg (1959) supports this position by indicating that during hard times employees' attitudes might well be the difference between success and failure. Johnson (1967) indicated that education administrators should take advantage of industrial research in this area and utilize it in the educational environment.

Larimore (1969) has indicated there is substantial scientific evidence supporting the proposition that attitudes of local participants in educational programs relate directly to success of the programs. For example, unfavorable teacher attitude toward the program in which he

works likely affects retention in the teaching profession. Wright and Tuska (1968) purport that teacher attitudes are generally considered basic to effective performance in the classroom.

Ramseyer, cited in Miller (1965), indicates that attitudes of people are important factors in determining behavior.

> The writers of antiquity remind us "that as man thinks, so is he." The way a man regards what he knows, the concepts he holds, and his attitudes toward himself and his associates are forceful determinents of his behavior. (p. 23)

Coughlan and Cooke (1974) also take the position that "work attitudes are important indicators of school performance. They can serve as a basis for gauging personal and organizational efficiency and effectiveness. They can also provide a framework for diagnosing organization problems and needs, and for designing programs of organizational improvement and staff development in schools." (p. 296) It is necessary for the administrator to take these attitudes into consideration in developing and planning the educational programs.

Ellenburg (1972) indicates there seems to be evidence that when high morale exists, productivity is increased. The author further concludes that morale affects more than just productivity or student achievement: it assists in establishing character of a school. "It is one of the factors which may determine whether a school functions at its best or whether it plods along happy just to see the passing of another day." (p. 37)

The Vocational Education Act of 1963 charted the new direction for vocational education as a shift was made toward meeting the needs of individual students. This trend was further emphasized by the Amendments of 1968 and 1972. This new direction provided for the inclusion of

students with wider range of ability and needs which called for creation of new programs and reorientation of many existing programs. The success or failure of these programs will be a direct result of how teachers and administrators manage the implementation. This means that rate of implementation and effectiveness of implementation can be greatly affected by the attitude toward the changes or adjustments required.

Assuming that the importance placed on attitudes and their influence on program success is valid, research should be done to clarify relationships among attitudes which would assist administrators in preparing for the accelerated rate of change predicted for the future. This study investigates the relationship between two attitudes, that of change orientation and teacher morale.

Statement of the Problem

The major purpose of this study was to investigate the relationships between morale and change orientation among vocational education teachers in Alabama. Additionally, the study investigated the following questions:

1. What are the differences in morale, or its dimensions, of vocational teachers in Alabama when compared by the following variables?
    a. vocational education service area
    b. level of education completed
    c. location of teachers (area vocational center or a regular high school)
    d. activity of the local advisory committee

e. adult program organization

f. adequacy of the equipment used in the program

g. adequacy of the facilities used in the program

h. type of geographical area where the school is located

2. What are the relationships between the morale of vocational education teachers in Alabama and the following variables?

a. age

b. years of teaching experience

c. daily student load

d. total school population in grades 9-12

3. What are the differences in change orientation of vocational education teachers in Alabama when compared by the following variables?

a. vocational education service area

b. level of education completed

c. location of teachers (area vocational center or a regular high school)

d. activity of the local advisory committee

e. adult program organization

f. adequacy of the equipment used in the program

g. adequacy of the facilities used in the program

h. type of geographical area where the school is located

4. What are the relationships between the change orientation of vocational education teachers in Alabama and the following variables?

a. age

b. years of teaching experience

c. daily student load

d. total school population in grades 9-12

Significance of the Study. The rationale for this study is based on the premise that the attitudes of teachers toward their work environment, and towards changes occurring in the total work setting are important criteria for teaching effectiveness. The success or failure of various school programs and the implementation of new methods depend to a great degree upon the teachers' attitudes toward the innovation. Handley and Shill (1973) hypothesized that the attitudes which teachers hold toward their jobs and students are directly related to teacher competence; i.e., teachers who hold more favorable attitudes toward students and who express more job satisfaction tend to promote student motivation and achievement more effectively. The classroom teacher needs a positive orientation to change if change is to occur. Otherwise, efforts to change the schools will be blunted at the classroom door. If efforts to change continue to bombard the classroom, can change affect the morale of teachers? Results of the proposed study should afford educational administrators valuable information as to the relationship of these two variables. If there is a relationship, it will have implications in establishing a more favorable climate for educational change and innovation. No studies of morale nor change orientation of vocational teachers in Alabama were located during a search of related literature.

Scope and Limitations. The study was limited to a random sample of State reimbursed secondary vocational education teachers in agribusiness,

home economics, trade and industrial, distributive, and business and office subject areas in the State of Alabama who had been employed at least one full year. The names of the 936 teachers included in the sample were drawn from the 1975-76 directories of educational personnel as provided by the State Department of Education, Division of Vocational Education. The findings of the study are generalizable only to the population as defined in the study. The findings may, however, provide valuable insight for educational administrators in general.

Definition of Terms

Teacher Morale refers to the professional interest and enthusiasm that a person displays toward the achievement of individual and group goals in a given job situation. This definition is operationally defined as being measured by the Purdue Teacher Opinionaire which sums the ten subfactor scores on the opinionaire to arrive at a total morale score.

Teacher Rapport with Principal deals with the teacher's feelings about the principal--his professional competency, his interest in teachers and their work, his ability to communicate, and his skills in human relations. This is factor one on the Purdue Teacher Opinionaire.

Satisfaction with Teaching pertains to teacher relationships with students and feelings of satisfaction with teaching. According to this factor, the high morale teacher loves to teach, feels competent in the job, enjoys students, and believes in the future of teaching as an occupation. This is factor two of the Purdue Teacher Opinionaire.

Rapport Among Teachers focuses on a teacher's relationships with other teachers. The items here solicit the teacher's opinion regarding

the cooperation, preparation, ethics, influence, interests, and competency of his peers. This is referred to as factor three on the Purdue Teacher Opinionaire.

Teacher Salary pertains primarily to the teacher's feelings about salaries and salary policies. Are salaries based on teacher competency? Do they compare favorably with salaries in other school systems? Are salary policies administered fairly and justly, and do teachers participate in the development of these policies? Items related to teacher salary compose factor four of the Purdue Teacher Opinionaire.

Teacher Load deals with such matters as recordkeeping, clerical work, "red tape", community demands on teacher time, extra-curricular load, and keeping up to date professionally. Teacher load is the fifth factor of the Purdue Teacher Opinionaire.

Curriculum Issues solicits teacher reactions to the adequacy of the school program in meeting student needs, in providing for individual differences, and in preparing students for effective citizenship. Items related to curriculum issues compose factor six of the Purdue Teacher Opinionaire.

Teacher Status samples feelings about the prestige, security, and benefits afforded by teaching. Several of the items refer to the extent to which the teacher feels he is an accepted member of the community. Teacher status is referred to as factor seven on the Purdue Teacher Opinionaire.

Community Support of Education deals with the extent to which the community understands and is willing to support a sound educational program. It is referred to as factor eight on the Purdue Teacher Opinionaire.

School Facilities and Services has to do with the adequacy of facilities, supplies and equipment, and the efficiency of the procedures for obtaining materials and services. Items related to school facilities and services compose factor nine of the Purdue Teacher Opinionaire.

Community Pressures gives special attention to community expectations with respect to the teacher's personal standards, his participation in outside-school activities, and his freedom to discuss controversial issues in the classroom. Factor ten on the Purdue Teacher Opinionaire relates to community pressures.

Change Orientation refers to an individual's predisposition or attitude toward change. This definition is operationally defined as that which is measured by the 21-item Russell Change Orientation Instrument (COI).

High School Vocational Teacher refers to vocational teachers who were located in and teaching full time at a regular high school.

Area Vocational Center in Alabama means either a specialized high school used exclusively or principally for the provision of vocational education to persons who are available for study in preparation for entering the labor market; or the department of a high school exclusively or principally used for providing vocational education in no less than

five different occupational fields to persons who are available for study in preparation for entering the labor market.

Area Vocational Center Teacher refers to vocational education teachers who were located in and teaching full time at an area vocational center.

Rural is used in this study to refer to population centers of 5,000 population or less.

Town is used in this study to refer to population centers of more than 5,000 and less than 50,000 and not within 25 miles of a city of more than 50,000.

Suburban is used in this study to refer to population centers of more than 5,000 and less than 50,000 and within 25 miles of a city of more than 50,000.

Urban is used in this study to refer to population centers of more than 50,000.

II. REVIEW OF RESEARCH AND RELATED LITERATURE

The vast number of research studies in the general fields of morale and change made it necessary to resort to a purposeful selection of literature to be reviewed for in this study. The review was limited to selections to orient the reader to the concepts of morale and change and provide the research with directions for designing the study. A review of selected literature concerning the concept of morale and factors related to morale composes the first section of this chapter. This review is followed by literature examined which relates to the change process and change orientation with emphasis on change related to educational innovations.

Morale

Development of the Concept of Morale

Interest in the area of employee attitudes did not begin to stir until the 1920's and it was not until the 1930's and 1940's that sufficient interest was created to mount many research efforts. Since that time extensive efforts and resources have been expended by researchers on the study of employee attitudes, especially in the area of job satisfaction and morale.

Perhaps the first systematic research done to expose this "human factor" in work situations was that done by Elton Mayo at the Hawthorne plant of the Western Electric Company during the period 1927-1932.

These studies started an avalanche of interest in human relations, job satisfaction, and morale. Most authors in the area of management indicate this was probably a turning point in administrative theory and management. These early studies by Mayo indicated that productivity was more than a function of employee aptitude, training and the skills possessed.

Despite this vast effort, the term "morale" has remained an elusive one and is still a hazy concept. Early attempts were made to come to grasp with the definition of morale.

Child (1941) quotes three definitions of morale from a report of a conference on psychological factors in morale, held in 1940 at Cambridge. These psychologists took cognizance of three different realms of discourse and proposed the following definitions of morale:

I. (The individual-organic emphasis) The term morale refers to a condition of physical and emotional well-being in the individual that makes it possible for him to work and live hopefully and effectively, feeling that he shares the basic purposes of the groups of which he is a member; and that makes it possible for him to perform his tasks with energy, enthusiasm, and self-discipline, sustained by a conviction that, in spite of obstacles and conflict, his personal and social ideals are worth pursuing.

II. (The group emphasis) Morale refers to the condition of a group where there are clear and fixed group goals (purposes) that are felt to be important and integrated with individual goals; where there is confidence in the attainment, in the leaders, associates, and finally in oneself; where group actions are integrated and co-operative; and where agression and hostility are expressed against the forces frustrating the group rather than toward other individuals within the group.

III. (Emphasis on individual-within-the-group on any specific occasion) Given a certain task to be accomplished by the group, morale pertains to all factors in the individual's life that bring about a hopeful and energetic

> participation on his part so that his efforts enhance the effectiveness of the group in accompanying the task in hand. (pp. 393-394)

Many of the articles considered morale synonymous with job satisfaction and job attitudes while others insisted that the terms are not synonymous. Blum (1956) insists that the concepts of morale and job satisfaction are different and that the terms should not be used interchangeably. Blocker and Richardson (1963) point out that job satisfaction is perhaps of a more encompassing nature whereas morale tends to concern itself more specifically with personnel practices. Crites (1969), however, states that morale is usually seen as a more comprehensive concept than satisfaction. Guba (1958) says that "high satisfaction must precede high morale in time if the extra energy required for high morale is to be available . . . Satisfaction and morale may be related to one another in these terms as a function of time." (p. 199)

In spite of the conceptual differences between the terms cited by Guba (1958), Child (1941), Crites (1969), and Block and Richardson (1963), a division of the studies into a category for job satisfaction and a category for morale would be an arbitrary one at best and would surely contain much overlap.

The early studies almost exclusively used the term job satisfaction. Two of the earliest works dealing with factors which contribute to an individual's satisfaction-dissatisfaction with his work were Fisher and Hanna (1931) and Hoppock (1935). Fisher and Hanna (1931) concluded that a large part of vocational maladjustment is a reflection of emotional maladjustment. This would tend to be more encompassing than many definitions of job satisfaction. Hoppock (1935) defined satisfaction as

"any combination of psychological and environmental circumstances that causes a person truthfully to say, 'I am satisfied with my job.'" (p. 47-48) The assumption of Hoppock's definition is that the worker is able to weigh the satisfactions against dissatisfactions and arrive at a composite rating for the job as a whole.

Halpin (1966), Guion (1958), Guba (1958), and Getzels and Guba (1957) state that morale is not unidimensional. They emphasize the interactional effects of individual and organizational needs in determining morale. Guion (1958) states it is the extent to which an individual's needs are perceived as being satisfied in the total job situation. Getzels and Guba (1957) suggest a model to define morale. This model shows morale as the interaction and relationships among belongingness, rationality, and identification. The variable of belongingness indicates how well an individual perceives that meeting institutional expectations will permit him to serve personal needs. The variable of rationality as shown in the model is the perception of the relationship between individual and group goals. The third variable in the model is that of identification which is the degree to which an individual is able to integrate the goals of the institution with his own needs. Guba (1958) suggests that satisfaction is a state of contentment associated with a situation which permits a person to discharge organizational requirements and meet individual needs through simultaneous acts and minimum expenditure of energy. This is essentially the third dimension of morale as proposed in Getzels and Guba's (1957) model.

Baehr and Renck (1958) refer to Maslow's Hierarchy of Life Needs in explaining morale from an individual needs approach. They report a study

by Haire and Gottsdanker which illustrated that "pay" appears to be a basic need and, when "pay" is satisfactory, high self actualization needs become dominant. When the individual's security is threatened by low pay, financial incentives are dominant. This concept was further pursued in studies developed by Trusty and Sergiovanni (1966). In a study of 233 secondary educators they used a modified hierarchy to measure perceived need deficiencies of teachers.

Gregory (1959) suggests two definitions of morale, one which could be used as a general term and the other for the industrial level.

> In general terms, it has been described as a feeling of belongingness or a feeling of happiness resulting from good personal adjustment through the satisfaction of individual needs and the absence of conflict.
>
> On the industrial level, morale has been variously defined as a collection of job-related attitudes, an individual's ego involvement in his job, his personal acceptance of the goals of the group, and his satisfaction with the job in general. (p. 33)

Gregory (1959) says that our total body goes through a constant struggle to maintain an adequate psychological and physiological balance. When we approach this balance we experience a pleasant feeling. In other words we are happy and our morale is high. Gregory (1959) further suggests the use of the "emotional graph" to gain a more realistic understanding of what is meant by morale.

Morale and/or job satisfaction was considered a continuous variable until the works of Herzberg (1966) presented job satisfaction as a dichotomous variable. Herzberg (1966) reports two essential findings derived from his earlier study:

> First, the factors involved in producing job satisfaction were separate and distinct from the factors that led to job dissatisfaction . . . these two feelings were not obverse of each

> other. Thus, the opposite of job satisfaction would not be job dissatisfaction, but rather no satisfaction; similarly, the opposite of job dissatisfaction is no job dissatisfaction, not satisfaction with one's job. (p. 95)

The findings of Herzberg from his study of 200 engineers and accountants suggested that man has two sets of needs - his need as an animal to avoid pain and his need as a human to grow psychologically. According to Herzberg's (1959) theory, there are some factors that are satisfiers when they are present, but their absence does not cause dissatisfaction. There are other factors which are dissatisfiers but when eliminated will not result in satisfaction and positive motivation. The environmental factors associated with the job are dissatisfiers or hygiene factors, whereas factors related to the work itself are satisfiers or motivation factors. Five factors were identified as satisfiers from Herzberg's (1959) studies: achievement, recognition, work itself, responsibility, and advancement.

Herzberg (1959) identified 11 factors which he classified as hygiene factors: salary, possibility of growth, interpersonal relations (subordinates), status, interpersonal relations (superior), interpersonal relations (peers), supervision-technical, company policy and administration, working conditions, personal life, and job security. A good hygiene environment can prevent job dissatisfaction but does not create job satisfaction. The hygiene factors can be considered extrinsic and the motivation factors intrinsic.

Some studies have successfully replicated the Herzberg findings in a study of school teachers. Brooks (1970) reports two studies by Sergiovanni in 1966 and 1968. Johnson (1967) identified factors which had been associated with job satisfaction and job dissatisfaction in

industry and applied them to education. The factors affecting teacher satisfaction as identified by Johnson are similar to those identified by Herzberg. These include achievement, interpersonal relations, recognition, work itself, and responsibility. Four factors - policy and administration, working conditions, status, and personal life - showed a significant relationship to teacher dissatisfaction. Salary did not show a statistical relation to either satisfaction or dissatisfaction of teachers with their jobs. Johnson's (1967) study supports Herzberg's theory in an educational environment.

Morale and Performance

As a result of the Hawthorne studies the disinterest in humanistic job attitudes was quickly reversed. In fact, the emphasis was so much in the other direction that many administrators concluded that if they could improve the employee's attitudes performance would automatically improve. This conclusion did not hold true.

Herzberg (1957) reviewed some 26 studies which cited some quantative relationship between a measure of productivity and measures of job attitudes. For 14 of these, workers with positive job attitudes showed higher productivity than those with negative attitudes. There was no relationship shown in nine of the studies and for three studies, workers with positive job attitudes actually showed poorer production records than those with negative attitudes. Herzberg (1957) stressed that "high productivity accompanies high morale only when the attitudes of the group favor maximum output." Brayfield and Crockett (1955) also conclude that the association between satisfaction and productivity might not be as strong as had been thought.

Anderson (1953) came to a different conclusion from his study of 20 Iowa secondary schools.

> Teachers in secondary schools whose pupils achieve relatively high scholastically appear to have higher morale than do teachers in schools with relatively low pupil achievement. Apparently teachers with relatively high morale can be expected to teach more effectively. (p. 696)

Greenwood and Soar (1973) found there was a negative relationship (Product-Moment Correlation) between teacher morale and percentage of teacher talk. They further noted that the percentage of teacher acceptance behavior was positively related to satisfaction with teaching and rapport among teachers. If one accepts Greenwood and Soar's assumptions that these factors are aspects of good teaching, then it can be proposed from this study that there is a positive relation between high morale and good teaching. Redefer (1959) concludes from a study of 24 school systems involving 5,000 teachers that the morale of teachers is closely related to the quality of education.

Koura (1963) and Eichborn (1973) also studied the relationship between morale and student performance. Koura (1963) found a significance (.01 level) between teacher morale and secondary students' achievement as measured by standardized tests. Eichborn (1973) found no significant relationship between composite morale score of elementary teachers on the Purdue Teacher Opinionaire and the change in learning rate of the pupil. There was a trend for pupils with teachers who had high morale scores to have slightly greater positive changes in learning rates though this change was not statistically significant.

Leedy (1975) completed a study which focused upon the organizational climate and teacher morale in elementary schools and their combined

effect upon student academic achievement. Conclusions drawn from the study indicate a significant positive relation with the academic achievement. Schools having a high degree of openness and teacher morale exhibited higher levels of student academic achievement.

Morale and Age

Herzberg et al. (1957) reviewed 23 studies in their analysis of the change in job attitudes with changing age. Seventeen studies were reviewed to determine how job attitudes were related to length of service. Eight of the 17 reviewed on length of service showed the same trend as studies relating to age. From his review of the studies showing relation between attitudes and age Herzberg concludes:

> In general, morale is high among young workers. It tends to go down during the first few years of employment. The low point is reached when workers are in their middle and late twenties, or early thirties. After this period, job morale climbs steadily with age. (p. 8)

McCluskey and Strayer (1940) report that teachers with four to twelve years of service were less happy than those with either more or less experience. They suggest that the very new teacher is challenged by the new position, and the old teacher is settled in his work and has accepted his status. Bender (1972) also found age to be significantly related to teacher morale. As a group the teachers in Bender's study who were 51 and older had the highest teacher morale ranking.

Rempel and Bentley (1970) found a significant relationship between age and morale scores (as measured by the Purdue Teacher Opinionaire) for each factor of the PTO as well as for the total score. They found a gradual upward progression in the level of morale with increasing age. In using the PTO to measure morale, Forrest (1970) found a significant

relationship on six of the ten factors of the instrument as well as on the total morale score. The trend in this relationship was the same as that found by Rempel and Bentley. Brooks (1970) also found this same relationship between age and morale.

Redefer (1959), however, established the generalization that age is not a determining factor of morale status. Redefer (1964b) also reports that the New York University studies suggest that there is no direct causative relation between morale and age or years of experience.

Morale and Years Experience

Results obtained by Rempel and Bentley (1970) indicate that teacher morale is significantly related to total years of experience. In most instances the means of the morale scores either dropped or increased only slightly when moving from the 1-3 years' to the 4-9 years' experience category. Beyond this point, there are usually sharp increases in morale for the other experience categories. Perullo (1973) found a linear relationship between morale and teaching experience in open climates and a curvilinear relationship in middle and closed climates.

Forrest (1970) and Brooks (1970) also compared morale scores based on years of teaching experience. Neither study found significant relations for total morale score and length of teaching experience. However, two factor scores in Forrest's study and one factor score in Brooks' study were found to be significantly related to length of service service.

Bernberg (1954) addressed himself to the interrelations of age and years of experience. Using a covariance adjustment for length of service, the study revealed there are significant differences in mean morale

scores attributable to age when the influence of length of service is removed. Bender (1972) found teaching experience significantly related to teacher morale with teachers having 20 or more years experience ranking the highest on morale.

Morale and Administrator - Teacher Interactions

Thompson (1961) noted that when members of a group participate in the formulation of goals, policies, and program, the group is more likely to accept them than if they are handed down through the hierarchy. The influence here is that as a result of becoming more involved in making decisions, persons become more satisfied with their profession. Several studies have attempted to determine the relationship between the organizational climate, leadership orientation of administrators and morale of teachers. Koplay (1966) suggests that the morale of schools appears to be a function of the organizational climate.

Wood (1973) reports of research by Tripack which indicates that schools with an open climate have teachers with high satisfaction and that schools with a closed climate have teachers with low satisfaction.

One of the most basic characteristics of the open system is that of feedback. This communication channel enables the system to make navigational adjustments in directing programs. Daw and Gage (1967) indicate that the behavior of principals was favorably affected by the feedback of ratings from teachers as to their actual and ideal principal. Bentley and Remple's (1967) findings did not favor the feedback. They conclude, however, that in spite of these findings, persistent efforts made by a principal and his staff to alleviate tensions and to solve problems that have been identified will result in improved morale.

Results from a study by Perullo (1973) indicate that closed climate teachers have significantly lower morale than open and middle climate teachers. Weiser (1974) makes the same conclusion from his study of the relationship between organizational climate and teacher morale.

Ellenburg (1972) reports from a review of research that the teacher's relationship with the principal is more important in determining morale level than is the teacher's relationship with other teachers. Ellenburg concludes that:

> The administrator plays a significant part in the establishment and maintenance of morale among the staff of the school. How well he functions and the degree to which he involves his staff will help determine the morale of his faculty. (p. 44)

Sweat (1963) studied the relationship of morale to the authoritarian-democratic traits of high school principals in Arkansas. He found that morale scores were higher for democratically administered high schools than for authoritarian administered high schools. The differences were not statistically significant and he concluded that the general level of the morale of teachers is not affected by the authoritarian-democratic personality traits of the principal. Leiman (1961) found that teachers who participated in school administration had higher morale than teachers who do not participate. Participative decision-making and morale have been proposed by some as variables that may significantly affect the ability of an organization to achieve its end. Best (1973) found significant differences among the decisional conditions in overall morale. Burkett (1965) concludes that a significantly positive relationship exists between staff morale and democratic school administration, which indicates that the more democratic the administration, the higher the staff morale.

Bidwell (1955) also addresses himself to the problem of the relationship between the school administrator and the teachers. He sees them as participating in a system of reciprocal role-expectations. From his study Bidwell concluded that convergence of expectations and perceptions is accompanied by satisfaction in teaching and divergence of these variables is accompanied by dissatisfaction. Franks (1963) also concluded that teacher morale appears to be related to teachers' perceptions and expectations concerning the role-behavior of their perspective principals. Laird (1974) found a significant and positive relationship between perceived leader behavior and teacher morale.

Redefer (1964a) also emphasizes the importance of administrative relations in determining morale. Principals, according to Redefer, occupy a key position in determining whether a teacher has high or low morale. Bhella (1975) however, states that teacher's satisfaction with teaching is probably related mostly to those things which happen directly with pupils inside the classroom over which principals have little influence.

Walker (1975) and Galloway (1975) conclude from their studies that there is a significant positive relationship between the leadership behavior of the principal and teacher morale. As teachers' perceptions of leader behavior become higher, their general levels of morale tend to become higher.

According to Coughlan and Cooke (1974) the policy implication for educational administrators is that they should insure that their best teachers are most satisfied. The goal would not be to maximize the

relationship between satisfaction and productivity. Hoppock and Super (1950) proposed the same conclusion.

> What is best for us, probably, is a condition somewhere between complete satisfaction and complete dissatisfaction, one that would leave us enough unrealized desires to keep us at work with active interest, but would relieve us of an urge to run away from our present troubles. (p. 126)

Morale and Other Factors

Schultz (1952) conducted a follow-up on the job satisfaction of University of Illinois graduates who chose teaching as their occupation. The generalizations drawn from this study reference many variables included in this study as well as others. These generalizations were:

1. The subject taught, the size of the community in which the teacher works, the length of teaching experience, and the amount of academic preparation, did not appear to be factors that significantly affected teacher morale.

2. Salaries that teachers received were related to their morale. The most dissatisfied teachers had lower mean salaries and more family responsibilities than did the most satisfied teachers.

3. Working conditions, supplies, and equipment were identified by teachers as important contributions to their morale. The most dissatisfied group was highly critical of the physical conditions surrounding their work, whereas the most satisfied group was complimentary regarding the physical facilities of their schools.

4. Highly satisfied teachers were much less likely to investigate new job opportunities than were very dissatisfied teachers.

5. The administrator was most often identified as the focal point of the teacher's satisfaction or disillusionment with his work. The evidence obtained in this study supported the hypothesis that administrative practices and procedures were of primary importance to teacher morale. (p. 56)

Chandler (1959) and Mathis (1959) conclude from their study of the relation between types of salary schedules and teacher morale that the

type of pay plan was not a significant variable by itself in determining the morale level.

Hoppock (1935) indicates that satisfied teachers enjoyed better relationships with superiors and associates, showed less evidence of emotional maladjustment, were more religious, and taught in cities of above 10,000 in population. Bender (1972) and Strickland (1972) found similar results in their studies. Bender's study revealed that teacher's relationship with other teachers ranked second to relationship with their principal as a determiner of high or low teacher morale. Strickland found teacher's relationship with other teachers first and relationship with principal second as determiner of high or low morale.

Terry (1972) found significant differences in the morale of teachers related to system size. Higher mean morale scores were reported for teachers in larger school systems. Gilbert (1972) did not find this relationship to exist in his study.

From this review of literature the author concludes that morale is a general function of a multitude of interrelated variables of factors. The interaction of these factors has probably precluded a precise definition of morale but it is an aspect of personnel administration with which any administrator should be very familiar. The fact that morale is a hypothetical construct rather than an empirically observed variable presents a challenge to these administrators.

Katzell (1958) states that the measurement of morale is a manifold. "We must endeavor to measure each of several variables and attributes that are comprised in our conceptual network, and to ascertain their inter-relations." Before one describes what variables should be

measured, a conceptual definition should be proposed. Katzell (1958) proposes the following definition:

> Morale is a condition of congruent motivation among members of a group, resulting in relatively high levels of energy-expenditure toward common goals having positive valance. (p. 73)

Change

Change Process

A greater portion of the early research on change and innovation was conducted in the area of rural sociology. The literature on change, the change process, innovation and knowledge use has become vast with much emphasis on the subject in recent years. Havelock and Guskin's (1968) work is an example of the efforts made to review works in this area. They contributed two major works with over 4,000 sources.

Havelock (1970) prepared a bibliography on educational change particulary for change agents in education which contained 495 annotated sources. Kurland and Miller (1966) described 170 books, articles and bibliographies in such fields as anthropology, education, political science, rural sociology, and psychology. Innovation research and theory have received attention from Bhola (1965) with a discussion of 278 items. Rogers (1962, 1971) reviewed over 600 publications in diffusion research. Only 71 of these, however, were in the area of education. Schmuck and Miles (1971) integrated the applied behavioral techniques of organizational development with changing schools. Stuart and Dudley (1968) gave approximately 650 sources which treat educational innovation from the perspective of social structure, social psychology and social organization. Skelton and Hensel (1970) prepared a selected and

annotated bibliography on the change process in education which included some 136 sources.

Willers (1971) stated that the patent concept in vocational education is that it must remain adaptable to changing conditions, and that the teacher be amenable to change. Willers (1971) also reminded that if vocational educators are to correct deficiencies in the present vocational education system, they must not merely keep up with changes which are occurring, but they must also stay ahead of them.

Rogers (1962) and Anderson (1966) provide evidence of the slowness of schools to adopt educational innovations. Rogers indicates that the average American school lags 25 years behind the best practice as a result of the time lag between the development of a new practice and the adoption by public schools. Anderson states that it takes 10 to 15 years for the first three percent of the schools to make a significant adoption and as much as 30 years for widespread adoption among other schools. Considerable investments are made each year to research, develop, and disseminate various types of educational innovations. Yet, when we look into the classroom practices in our schools, the theory-practice gap is very evident.

This concern over the lag between research and practice has been evident by the emphasis placed on the change process among vocational teachers. An EPDA regional in-service program was conducted in Atlanta, Georgia, during June 1-5, 1975, to deal with developing change-agent competencies in administrators of vocational education. This program examined the dimensions of the change process and the change-agent's role in the process. Other meetings of this nature have been held around the

country, all of which substantiate the importance of developing strategies for the diffusion of innovations.

B. O. Smith (1963) says:

> If a fraction of the money that is currently spent to change educational practice were spent to find out how to succeed in making such change, a great deal would thereby be saved. Few things would be of greater significance for education today than for a group of behavioral scientists to work with a group of practitioners in an effort to change significant aspects of the educational systems. . . (p. 9)

Smith implies the need for a plan for effecting and studying change which would involve the practitioner and the researcher. Goodlad (1969) emphasized the need for involvement of the practitioner when he indicated that the key unit in a plan for educational change is the individual school with its principal, teachers, students, parents, and community setting.

Householder (1972) writes:

> "It would be most helpful if educators knew which variables were critical to the acceptance of an innovation and how to proceed to effect change with a minimum of opposition. The failure of some promising innovations to achieve widespread acceptance could perhaps be attributed to difficulties in attaining changes rather than to intrinsic weaknesses in the program." (p. 44)

Models of the change process have been posited by authors of many disciplines. Rogers (1962) outlines a model based on a synthesis of research findings in his work on agricultural practice adoption by individual farmers. Rogers (1962) lists five steps in the change process in his first book, but he alters these somewhat in his second book (Rogers, 1971) to include four stages. These four stages are as follows:

1. Knowledge - The individual is exposed to the innovation's existence and gains some understanding of how it functions. functions.

2. Persuasion - The individual forms a favorable or unfavorable attitude toward the innovation.

3. Decision - The individual engages in activities which lead to a choice to adopt or reject the innovation.

4. Confirmation - The individual seeks reinforcement for the innovation-decision he has made, but he may reverse his previous decision if exposed to conflicting messages about the innovation. (p. 40)

Gross, Giacquinta, and Bernstein (1971) argue that Rogers' model has little use in explaining the success or failure of the implementation in schools. The reasons given are as follows:

1. One of the basic assumptions is that during any of the intermediate stages between awareness and use, the individual is free to decide himself whether the innovation shall be tried, and if tried, whether it should be continued. This assumption does not apply to major educational innovations in most school situations. For example, programs which have been designed by top administrators and teachers asked to carry them out.

2. Many educational innovations cannot be tried on a small scale and cannot be implemented by teachers unless they have the cooperation and support of their colleagues.

3. Many educational innovations are so complex that they cannot be tried in an "either-or" fashion, and some require several years of full implementation before an adequate evaluation of their effectiveness can be made. (p. 21-22)

Gross, et al (1971) conclude that the findings from the study show that failure to implement the innovation was attributable to a number of obstacles that the teachers encountered when they attempted to carry it out. Several of these deal with teacher attitudes toward change and attitudes toward the specific innovation.

Bice (1970) has shown that change agents should not limit or equate opinion leadership with innovativeness. Russell (1972) notes that

opinion leaders are not normally innovators, but are usually in the early adopter category as defined by Rogers (1962).

In addition to Rogers' model, others have been proposed, most of which do not differ significantly in content. An example of these models is that proposed by Fox and Lippitt (1964). The following steps were listed in their model:

1. Development of need for change (motivation and sensitivity).
2. Psychological acceptance of a source of help (help acceptance).
3. Formulating goals for change (conceptualization).
4. Skills, transforming intentions into action (intent-skill integration).
5. Consolidation of change (evaluation).

Not only is an understanding of the change process itself important for all persons' change agents, but an understanding of individuals involved in that process is also important. The relative amount of time required for individuals to adopt innovations is used by Rogers (1962) to define adopter categories. These categories are summarized by the following characteristics:

1. Innovators, make up 2.5 percent of the population and are characterized by venturesomeness. They are the first to adopt innovations. They are frequently viewed as deviants from the system's norm. Inherent in the term is the characteristic of firstness in adopting new ideas.
2. Early adopters, comprising 13.5 percent of the population, are the next to adopt after the innovators. Their dominant value is respect for their peers. This desire for respect from others is the compelling force behind their decision to adopt innovations.

3. The early majority, makes up 34 percent of the population. They are more deliberate in their adoption of innovations and are willing to consider innovations only after their peers have adopted.

4. Overwhelming pressure from peers is needed before adoption occurs in the late majority category. This category comprises 34 percent of the population.

5. Laggards, making up 16 percent of the population, are the last to adopt an innovation. They are highly traditional in their orientation and rely on the past for their point of reference. (p. 192)

Change Orientation

Lin, Leu, Rogers, and Schwartz (1966) expressed the belief that a measure of change orientation and innovativeness was entirely possible. They found in their research that:

> "Teachers attitudes toward change (change orientation) in general and attitudes toward a specific innovation were found to be significantly correlated with a number of variables identified as being important in innovation diffusion." (p. 68-69)

Russell (1972) conducted a study to determine whether or not change orientation of vocational teachers was measurable. The adopter categories proposed by Rogers (1962) formed the basis for Russell (1972) developing an instrument to measure the change orientation of vocational teachers. He makes the assumption that the most highly change-oriented individuals are the most innovative.

The need for such an instrument is supported by Lin, Leu, Rogers, and Schwartz (1966). They state:

> An instrument designed to measure an individual's change orientation would provide vital information for planning the introduction of an innovation into a system. It could be utilized before an innovation is introduced, providing information about the member's receptivity to change and the liklihood of successful introduction of the innovation into the system. And by learning what factors might be related to a teacher's change orientation, procedures for altering the level of change

> orientation could be initiated, provided that these factors were manipulable. (p. 67)

Russell (1972) developed an instrument to measure the change orientation of vocational teachers. Eight attitude subscales were designed to measure change orientations of vocational teachers relating to specific goals and functional areas of vocational education. A 21-item general factor scale was also identified by factor analysis. This general factor scale was found to be a powerful discriminator between the groups (early adopters and laggards) and an efficient and effective measure of change orientation in vocational teachers. Russell concludes from this study that change orientation is a measurable characteristic of vocational teachers with some demonstrable validity. He cautions, however, that the change oriented vocational teachers may be restrained from implementing innovations due to any number of real or perceived barriers in their environment.

Lukers (1973) used Russell's Change Orientation Instrument (COI) in his investigation of the relationships between teachers' change orientation and their students' attitudes. His study presented evidence that teachers with higher COI scores tend to receive more favorable student descriptions of human relations in their classrooms; and students of teachers with higher COI scores tend to perceive the instruction that they they receive as being more meaningful. The evidence from other studies which used the COI is in favor of its validity and reliability.

Adamsky (1973) found that the relationship between teachers' change orientation and adoption of the practice of using behavioral objectives was significant. The COI was used to measure the teachers' orientation to change.

The foregoing discussion indicates that it is possible to identify change oriented vocational teachers. If these teachers are identified, it would give administrators a core of personnel from which they might select change agents to assist in effecting innovations. The formulation of innovation diffusion strategies using change oriented teachers could provide a breakthrough in reducing the research-implementation time lag.

Russell (1975) states:

> What appears clear now is that vocational teachers who generally like change, who thrive upon it, are more likely to accept, implement, and promote curriculum improvements than those teachers who dislike or fear change. (p. 31)

Attitudes toward change do, however, require extended time to change:

> The individual does not usually enjoy the ordeals of change, especially if change affects those skills which are viewed as a part of one's person. And while comtemporary society has become vastly innovative, it has yet developed very few members of society who relish undefined career patterns of life. We have had time for changes, but we have not had enough time to change our attitudes toward change. (Willers, 1971, p. 19)

III. DESIGN OF THE STUDY

The design for this investigation was basically an ex post facto design. Kerlinger (1966) stated that:

> Ex post facto research may be defined as that research in which the independent variable or variables have already occurred and in which the research starts with the observation of a dependent variable or variables.

The purpose of this chapter is to describe the design of the study, the method by which the population for the study was determined, and the method of data collection and analysis.

Population

This study consisted of 936 vocational education teachers teaching at the secondary level in Alabama public school systems who had been employed for at least one full year. These 936 teachers were selected randomly from each of five vocational education service areas in Alabama. These service areas were agribusiness, home economics, distributive education, trade and industrial education, and business and office education. The sample was drawn from the 1975-76 directories of educational personnel as provided by the State Department of Education, Division of Vocational Education. Names in the directories were numbered in consecutive order and a table of random numbers used to select the sample.

Sample size was determined using the formula for determining sample size published by the National Education Association (1960). The formula used was:

$$s=X^2 NP(1-P) \div d^2 (N-1) + P (1-P)$$

where
s_2 = required sample size
X^2 = the table value of chi-square for 1 degree of freedom at the desired confidence level
N = the population size
P = the population proportion (assumed to be .50 since this would provide the maximum sample size)
d = the degree of accuracy expressed as a proportion (.05)

The total number of persons included in the sample is presented in Table 1.

Table 1

Sample Size by Service Area

Service Area	Sample
Agribusiness Education	202
Home Economics Education	239
Distributive Education	88
Trade and Industrial Education	233
Business and Office Education	174
Total Sample	936

Instrumentation

The Purdue Teacher Opinionaire, a previously validated and standardized instrument, was used in gathering the data to measure teacher morale. This instrument was designed by Bentley and Remple (1970) at Purdue University. The instrument consists of 100 items. The total morale score is obtained from the summation of all 100 items of the opinionaire. The PTO also provides ten factors of subscores which

categorize morale into some of its dimensions. These 10 factors are as follows: (1) Teacher Rapport with Principal, (2) Satisfaction with Teaching, (3) Rapport Among Teachers, (4) Teacher Salary, (5) Teacher Load, (6) Curriculum Issues, (7) Teacher Status, (8) Community Support of Education, (9) School Facilities and Services, and (10) Community Pressures. The description of these factors are included under the definition of terms.

Bentley and Remple (1970) report that the Kuder-Richardson internal consistency reliability coefficients for the categories of the first form of the Opinionaire developed in 1961 ranged from .79 to .98, with an overall reliability coefficient of .96. Interfactor correlations range from .18 to .61 with a median correlation of .38 and appear to be sufficiently low to make factor scores meaningful.

Bentley and Rempel (1970) report test-retest correlations ranging from .62 to .88 for the subfactor scores of the Purdue Teacher Opinionaire. The investigator computed a Cronbach alpha reliability coefficient (Cronbach, 1951) as the reliability of measurement for the sample included in the study. A coefficient alpha was computed for the total sample and also for each vocational education service area included as a part of the sample. The coefficient alpha ranged from .43 to .98, with an overall coefficient of .97. The coefficients for the Purdue Teacher Opinionaire factors for the sample in the study are reflected in Table 2. Cronbach's general formula (α) is shown to be the mean of all split-half coefficients resulting from different splittings of a test.

Table 2

Coefficient Alpha for Purdue Teacher Opinionaire Factors by Vocational Education Service Area, Alabama 1976

Morale Factors	Coefficient Alpha (α) *					
	Agribusiness (n = 156)	Home Economics (n = 213)	Distributive (n = 85)	Trade and Industrial (n = 189)	Business and Office (n = 162)	Total Sample
Teacher Rapport With Principal	.97	.96	.98	.96	.96	.97
Satisfaction With Teaching....	.89	.85	.86	.86	.87	.87
Rapport Among Teachers.....	.92	.89	.91	.91	.89	.91
Teacher Salary.....	.83	.75	.80	.76	.74	.77
Teacher Load	.79	.77	.74	.74	.78	.77
Curriculum.....	.89	.85	.85	.80	.85	.86
Teacher Status.....	.83	.78	.82	.83	.75	.80
Community Support of Education	.88	.78	.84	.81	.80	.82
School Facilities and Services	.79	.79	.73	.70	.74	.76
Community Pressures.....	.69	.63	.69	.43	.56	.60
Total Morale.....	.97	.96	.97	.96	.96	.97

Notes: n = Number of Teachers

$$*\alpha = \frac{K}{K-1}\left(1 - \frac{\Sigma IV}{TV}\right)$$

The original instrument was validated against peer judgements made by fellow teachers. To accomplish the peer judgements, teachers were asked to identify by name, depending on the size of the faculty, from three to ten teachers whom they considered to have the highest morale, and also to select an equal number whom they considered to have the lowest morale. On the basis of the peer judgements, high, middle, and low teacher morale groups were identified. To determine the instrument's validity against the peer judgement criterion, mean PTO scores were caluclated for each of these groups. Differences among the three groups were in the expected direction and significant beyond the .05 level of significance.

Bentley and Rempel (1963), Brinkman (1966), and Project: Time to Teach (1966), the PTO was found to discriminate sharply among different schools, and also among the individual teachers in a particular school.

The measure of change orientation of the vocational education teachers was obtained through the use of Russell's (1972) Instrument to measure the Change Orientation of Vocational Teachers (COI) as reflected in Appendix A. Russell recognized the need for identifying vocational teachers of high change orientation and developed an instrument using the Thurstone method of equal-appearing intervals and scored with a modified Likert procedure. "Known groups" of vocational teachers representing "early adopters" and "laggards" in 38 states, with 125 in each group, comprised the sample for his study. Russell concluded from the study that change orientation is a measurable characteristic of vocational teachers with some demonstrable validity. A 21-item general factor scale was identified by factor analysis and

was found to be a powerful discriminator between the groups and an efficient and effective measure of change orientation in vocational teachers. This 21-item scale was used in this study as a measure of the teacher's change orientation.

Russell (1972) points out that the COI was found to have a Kuder-Richardson (Formula 8) reliability of .91. A search of literature identified eight studies in which the COI was used. Evidence from these studies was very much in favor of the instrument's validity and reliability. Jacobsen (1973) found a reliability coefficient (Kuder-Richardson Formula 8) of .89 on a 10-item version of the Change Orientation Instrument (COI). Kester (1973) reported a .92 reliability coefficient (Cronbach's alpha) on the 21-item COI where four of the 21 items were slightly modified to make them more generalizable to the sample of the study. Based on 737 COI scores, Lukers (1973) gave a reliability coefficient (Cronbach's alpha) of .88. A Cronbach's alpha reliability coefficient was computed for the total sample in the present study and for each vocational education service area represented in the study. The coefficients ranged from .78 to .88 for the service areas with a coefficient of .83 for the total sample.

In addition to the two instruments described above, a survey form (Appendix B) was developed by the researcher and used for collecting biographical data on individuals.

Data Collection

The instruments used in this research were administered to the selected sample from agribusiness teachers, home economics teachers, distributive education teachers, trade and industrial day-trade

instructors, and business and office education teachers during August of 1976 at the annual conference for that particular service area. The annual conference for trade and industrial education coordinators was held in July of 1976 prior to the completion of the instruments, therefore, it was necessary to mail the instruments to the coordinators that were selected as a part of the sample.

Approximately two weeks prior to the conferences a letter from the Director of Vocational Education was mailed to each teacher selected in the sample. The letter informed teachers of their selection and encouraged their cooperation in the study. The instruments and a letter of instructions were provided to each of the selected teachers as they registered for the conference. The instruments were picked up from the supervisors of each service area on the last day of the conference. Names of those teachers selected as a part of the sample but not in attendance were reviewed as to their status. Those teachers not in attendance but currently teaching were mailed their instruments. The names of the 43 persons in the sample who, for some reason, were no longer teaching were replaced by randomly selecting 43 persons to be included in the study. The newly selected persons were mailed instruments and instructions for the completion of each instrument.

In an attempt to reduce non-response as a threat to the study, the investigator took the following steps:

1. Instruments were coded so that non-respondents could be identified.

2. A letter was sent to all persons selected as a part of the sample to make them cognizant of the study.

3. Instruments were administered at the annual conference (when possible) rather than mailed out.

4. Two weeks following the conferences, a follow-up letter was mailed to each teacher who had not returned his instruments.

Table 3 depicts the number and percent of usable responses received from each service area included in the sample. Eleven responses were returned after the deadline and were counted as non-responses. Additionally, 19 responses returned were incomplete and also counted as non-responses.

Table 3

Responses by Service Area

Service Area	Number in Sample	Number Usable Received	Percent
Agribusiness Education	202	156	77.2
Home Economics Education	239	213	89.1
Distributive Education	88	85	96.6
Trade and Industrial Education	233	189	81.1
Business and Office Education	174	162	93.1
Total	936	806	86.1

Research Hypotheses

In order to determine the relationships and differences in teacher morale and change orientation, the following null hypotheses were tested:

1. There are no significant relationships between the morale of vocational teachers, as measured by the Purdue Teacher Opinionaire, and their change orientation scores as measured by the Change Orientation Instrument.
2. There are no significant differences in vocational teachers' morale scores on the dimensions of teacher rapport with principal; satisfaction with teaching; rapport among teachers; teacher salary; teacher load; curriculum issues; teacher status; community pressures; and total morale as measured by the Purdue Teacher Opinionaire when compared by:
    a. vocational education service area
    b. level of education completed
    c. area vocational centers and regular high schools
    d. activity of their advisory committees
    e. adult program organization
    f. adequacy of equipment used in program
    g. adequacy of facilities used in program
    h. type of area where school is located
3. There are no significant relationships between vocational teachers' morale as measured by the Purdue Teacher Opinionaire and:
    a. age

b. years of teaching experience

c. daily student load

d. total school population in grades 9-12

4. There are no significant differences in vocational teachers' change orientation as measured by the Change Orientation Instrument when compared by:

a. vocational service area

b. level of education completed

c. area vocational centers and regular high schools

d. activity of their advisory council

e. adult program organization

f. adequacy of equipment used in program

g. adequacy of facilities used in program

h. type of area where school is located

5. There are no significant relationships between vocational teachers' change orientation as measured by the Change Orientation Instrument and:

a. age

b. years of teaching experience

c. daily student load

d. total school population in grades 9-12

Treatment of Data

The data provided by each respondent on the personal data form, the Change Orientation Instrument, and the Purdue Teacher Opinionaire were punched on IBM cards for the purpose of calculating frequencies by use of the IBM 370-158 computer. The statistical programs utilized in the

analysis of the data were selected from the Statistical Package for Social Sciences (SPSS).

Responses of each teacher on the 21-item Change Orientation Instrument were inverted according to whether an agree or disagree answer had positive valance so that measures would be based on the same scale. These responses were then summed to give a change orientation score.

Morale scores in the Purdue Teacher Opinionaire were obtained by having teachers respond to statements in various categories using the following scale: A = agree, PA = probably agree, PD = probably disagree, and D = disagree. The items in the opinionaire were both positive and negative; therefore, the responses were keyed and scored so that high morale received a score of four and ranged downward to a low morale score of one. The 100 items on the Purdue Teacher Opinionaire are categorized according to their relationship to ten factors. The responses on items related to each factor was summed to give factor scores and all 100 items summed for the total morale score.

A product moment correlation utilizing subprogram PEARSON CORR from the SPSS was used to measure the strength of relationship between morale scores and change orientation, between morale scores and age, years teaching experience, daily student load, and total school population (grades 9-12), and between change orientation scores and age, daily student load, and total schedule population (grades 9-12).

Each independent variable listed in Hypotheses two and four was analyzed using subprogram ONEWAY to determine if significant differences existed between groups. Subprogram ONEWAY was chosen over subprogram ANOVA due to the posteriori contrast test statistics available with

subprogram ONEWAY. The Scheffe' method of multiple comparisons was used to determine whether significant differences existed between means. The Scheffe' test is the most general of the multiple-comparisons procedure. It is not limited to samples of equal size nor is it limited to simple pairwise comparisons. The Scheffe' test was chosen by the investigator due to the fact that comparisons made between groups in the studies included groups of unequal size.

IV. DISCUSSION

The detailed findings of this investigation are presented in tabular form with the order of presentation of the tables coinciding with the order of the hypotheses presented in Section III. All statements referring to statistical significance are meant to infer a relationship or differences at the .05 level, or higher. Significant findings in tables are indicated by asterisks with one asterisk (*) indicating significance at the five percent level and two asterisks (**) indicating significance at the one percent level.

Hypothesis 1: There are no significant relationships between the morale scores of vocational teachers on the Purdue Teacher Opinionaire and their change orientation scores as measured by the Change Orientation Instrument.

The morale scores and change orientation scores were computed for each respondent and analyzed by the product moment correlation technique using PEARSON CORR form SPSS. In addition to the correlation of total morale score and change orientation, correlations were computed for relationships between each subfactor score on the Purdue Teacher Opinionaire and change orientation scores. Correlations were computed for the total sample and also for each vocational education service area represented in the study. The coefficients for the correlations are presented in Table 4. A significant positive correlation was found between total morale scores and change orientation scores as well as between each subfactor score and change orientation score.

Table 4

Correlations Between Morale Scores on Purdue Teacher Opinionaire Factors and Change Orientation Scores for Vocational Teachers by Service Area, Alabama 1976

Morale Factor	Correlation Coefficient					
	Agribusiness (n = 156)	Home Economics (n = 213)	Distributive (n = 85)	Trade and Industrial (n = 189)	Business and Office (n = 162)	Total Sample
Teacher Rapport With Principal	.211 **	.171 **	.096	.076	.161 *	.159 **
Satisfaction With Teaching....	.427 **	.218 **	256 **	.146 *	.346 **	.301 **
Rapport Among Teachers.....	.328 **	.103	.174	.020	.178 *	.164 **
Teacher Salary.....	.117	-.004	.355 **	.064	.126	.119 **
Teacher Load.....	.166 *	.054	.294 **	.180 **	.299 **	.192 **
Curriculum.....	.244 **	.129 *	.120	.046	.189 **	.163 **
Teacher Status.....	.260 **	.074	.365 **	.065	.262 **	.194 **
Community Support of Education	.265 **	.073	.088	.110	.215 **	.154 **
School Facilities and Services	.178 *	.053	.077	.044	-.007	.091 **
Community Pressures.....	.176 *	.079	.393 **	.099	.306 **	.201 **
Total Morale.....	.325 **	.163 **	.260 **	.118	.300 **	.243 **

Notes: n = Number of Teachers
*$p < .05$
**$p < .01$

The results of this analysis indicate there was a significant relationship between morale scores and change orientation scores with the tendency being for teachers with higher morale to have a more positive attitude toward change. However the magnitude of the relationships was small.

The highest correlation existed between change orientation scores and the subfactor satisfaction with teaching. As defined, this subfactor pertains to teacher relationships with student and feelings of satisfaction with teaching. The correlation indicates that those teachers who were more satisfied tend also to have a more positive attitude toward change. Based on the findings of the study, Hypothesis One was rejected.

Hypothesis 2a: There are no significant differences in vocational teachers' morale as measured by the Purdue Teacher Opinionaire when compared by vocational education service area.

The scores on the Purdue Teacher Opinionaire were grouped according to vocational education service area and analyzed by single classification analysis of variance using subprogram ONEWAY. Table 5 reflects the means and the results of the analysis of variance between means. The means were also analyzed by Scheffe' multiple comparison tests to determine the significant differences between service areas.

Significant differences beyond the .05 level of significance existed for total morale scores and each factor except teacher status. Agribusiness education teachers had significantly lower mean morale scores than each of the other service areas. Their scores on satisfation with teaching and community pressures were also significantly lower than each of the other service areas. Agribusiness education

teachers' morale scores on factors of teacher load, curriculum and school facilities and services were significantly lower than morale scores of distributive education, trade and industrial education, and business and office education teachers. Significant differences also existed between agribusiness education teachers' morale scores on factors of teacher rapport with principal, rapport among teachers, teacher salary, and community support of education and the scores on these factors for trade and industrial education teachers and business and office education teachers.

Significant differences also existed between the mean total morale score of home economics teachers and trade and industrial education and business and office education teachers. The factor morale scores of home economics teachers were significantly lower than the factor scores of distributive education, trade and industrial education, business and office education teachers on teacher load, curriculum, and school facilities and services. Their scores were significantly lower than factor scores of trade and industrial education, and business and office education teachers on rapport among teachers and community support of education. Factor Scores for home economics teachers on teacher rapport with principal and community pressures were significantly lower than the scores of trade and industrial education teachers.

The mean morale score for distributive education teachers was significantly lower than the mean morale score for trade and industrial education teachers. Significant differences in the same direction also existed between these two service areas on teacher rapport with

Table 5

Differences Between Morale Scores on Purdue Teacher Opinionaire Factors for Vocational Teachers by Service Areas, Alabama 1976

Morale Factors	Service Area Scores										Analysis Among Mean Scores
	Agribusiness (n = 156)		Home Economics (n = 213)		Distributive (n = 85)		Trade and Industrial (n = 189)		Business and Office (n = 162)		F Value
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	
Teacher Rapport With Principal	59.6	15.8	62.2	14.4	59.9	71.5	67.0	14.0	64.3	13.9	6.761**
Satisfaction with Teaching....	69.6	8.4	71.8	6.6	71.8	6.5	72.4	6.4	72.3	7.1	4.137**
Rapport Among Teachers.....	43.9	7.8	44.6	7.3	44.2	7.9	49.0	6.7	46.0	6.8	14.219**
Teacher Salary.....	19.1	5.1	19.8	4.5	19.5	4.8	20.5	4.4	20.1	4.5	2.460*
Teacher Load.....	31.9	5.9	32.8	5.7	34.5	5.1	35.0	5.2	35.3	5.4	11.686**
Curriculum.....	13.9	4.0	14.2	3.7	15.5	3.8	16.6	3.0	16.1	3.5	19.547**
Teacher Status.....	24.9	4.8	25.8	4.2	24.7	5.0	25.7	4.6	25.9	4.1	1.951
Community Support of Education	15.3	3.6	15.1	3.1	15.4	3.6	16.7	3.0	16.2	3.1	8.310**
School Facilities and Services	12.0	4.0	12.5	4.0	14.8	3.6	14.1	3.8	14.1	3.7	13.920**
Community Pressures.....	16.0	2.9	16.6	2.5	16.7	2.6	17.1	2.1	17.1	2.3	5.505**
Total Morale.....	306.3	47.7	315.3	38.9	317.0	45.3	334.0	38.1	327.5	37.2	12.024**

Notes: n = Number of Teachers
SD - Denotes Standard Deviation
* $p < .05$
** $p < .01$

principal, rapport among teachers, curriculum, and community support of education. There were significant differences exhibited between scores of distributive education teachers and business and office education teachers on teacher rapport with principal and rapport among teachers. Business and office educaion teachers had the higher score of the two service areas.

Based on the results of the analysis of data Hypothesis 2a was rejected.

Hypothesis 2b: There are no significant differences in vocational teachers' morale as measured by the Purdue Teacher Opinionaire when compared by level of education completed.

Table 6 presents the analysis of morale scores by educational level of teachers. Purdue Teacher Opinionaire responses from participants were grouped according to level of education completed and analyzed by single classification analysis of variance using subprogram ONEWAY followed by Scheffe' tests to determine significant differences. Due to the close similarity of AA Certificate and Education Specialist Degree and the fact that only eight teachers had degrees equivalent to or higher than the Education Specialist Degree, the categories of AA Certificate, Education Specialist, and Doctor's Degree were combined for analysis purposes.

Significant differences beyond the .05 level of significance existed for total morale scores and seven of the 10 factors of morale. Morale scores of those with less than a bachelors degree tended to be higher than other levels of education completed.

TABLE 6

DIFFERENCES BETWEEN MORALE SCORES ON PURDUE TEACHER OPINIONAIRE FACTORS FOR VOCATIONAL TEACHERS BY LEVEL OF EDUCATION, ALABAMA 1976

Morale Factors	Scores by Level of Education								Analysis Among Mean Scores
	Less Than Bachelors Degree (n= 116)		Bachelors Degree (n= 277)		Masters Degree (n= 352)		AA Certificate or Higher (n= 60)		F Value
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	
Teacher Rapport With Principal	68.5	13.3	61.3	16.1	62.6	14.3	62.1	16.4	6.595**
Satisfaction With Teaching . .	72.6	6.8	71.0	7.1	71.6	7.1	72.5	7.4	1.729
Rapport Among Teachers	50.4	5.9	44.7	7.3	45.1	7.4	45.0	8.3	19.258**
Teacher Salary	21.1	4.7	19.5	4.4	19.7	4.7	19.9	5.1	3.483*
Teacher Load	35.1	5.4	33.2	5.8	33.9	5.5	34.0	6.2	2.975*
Curriculum	17.1	2.9	14.8	3.8	14.8	3.7	15.6	3.8	13.188**
Teacher Status	26.1	4.7	25.4	4.4	25.5	4.3	24.8	5.5	1.316
Community Support of Education	17.0	2.9	15.3	3.8	15.7	3.2	15.8	3.8	7.088**
School Facilities and Services	13.9	4.0	13.0	4.2	13.4	3.8	13.7	3.8	1.639
Community Pressures	17.5	2.0	16.4	2.6	16.7	2.5	16.7	2.9	4.780**
Total Morale	339.3	37.8	314.6	42.6	319.0	40.5	319.9	47.1	9.983**

Notes: n = Number of Teachers
SD - Denotes Standard Deviation

* $p < .05$
** $p < .01$

Mean morale scores of respondents with less than a bachelors degree were significantly higher than those with a bachelors degree on all factors where F values were significant. The scores of those with less than a bachelors degree were also significantly higher than those with a masters degree and those with an AA Certificate or higher on teacher rapport with principal, rapport among teachers, curriculum, and community support of education. Significant differences also existed between those with less than a bachelors degree and those with a masters degree on teacher salary, teacher load, and community pressures. Scores for those with less than a bachelors degree were higher in each instance. There were no significant differences between the educational levels of a bachelors degree or higher.

Hypothesis 2b was rejected based on the results of the analysis presented above.

Hypothesis 2c. There are no significant differences in vocational teachers' morale as measured by the Purdue Teacher Opinionaire when compared by area vocational centers and regular high schools.

Vocational education in Alabama is offered in a variety of settings which reflect differences in training needs and population distribution within communities served. Area vocational centers serve several schools and/or school districts. In some systems a comprehensive vocational program is offered in the regular high school. Responses on the Purdue Teacher Opinionaire were grouped according to whether the teachers indicated they were located in an area vocational center or regular high school. This grouping was analyzed by single classification analyis of variance using subprogram ONEWAY.

Significant differences beyond the .05 level of significance existed for mean total morale scores and nine of the 10 factor scores. In each case the morale scores for those located in the area vocational centers were significantly higher than those located in the regular high schools. Table 7 presents the analysis of morale scores by location of teachers. The results of the analysis led the investigator to reject Hypothesis 2c.

Due to the nature of courses offered in the area vocational centers in Alabama, there is a greater percentage of teachers that have less than a bachelors degree than exist in the vocational programs at regular high schools. Forty percent of the participants in the study which were located at area vocational centers had less than a bachelors degree.

This variance in percentage led the investigator to analyze the differences between morale scores of area vocational center teachers and high school vocational teachers by level of education completed. The mean morale scores and the single classification analysis of variance among these means are presented in Table 8.

Significant differences were revealed in morale scores for teachers with less than a bachelors degree in area vocational centers and teachers with less than a bachelors degree in high schools. Significant differences also existed between those with a masters degree in the two locations. In each instance, teachers located in area vocational centers had higher morale scores than teachers located in regular high schools.

Table 7

Differences Between Morale Scores on Purdue Teacher Opinionaire Factors for Vocational Teachers by Location of Teacher, Alabama 1976

Morale Factors	Location of Teacher				Analysis Among Mean Scores
	Area Vocational Center (n = 243)		High School (n = 562)		
	Mean	SD	Mean	SD	F Value
Teacher Rapport With Principal	64.9	16.0	62.1	14.7	5.539 *
Satisfaction With Teaching....	72.3	7.1	71.3	7.1	3.103
Rapport Among Teachers.....	49.2	6.6	44.2	7.3	82.951 **
Teacher Salary.....	20.6	4.6	19.5	4.6	8.758 **
Teacher Load.....	35.1	5.0	33.3	5.8	18.940 **
Curriculum.....	16.9	3.1	14.5	3.7	77.233 **
Teacher Status.....	26.1	4.3	25.2	4.6	6.656 **
Community Support of Education	16.7	3.1	15.4	3.3	26.458 **
School Facilities and Services	14.3	3.9	12.9	3.9	19.695 **
Community Pressures.....	17.2	2.1	16.5	2.6	11.984 **
Total Morale.....	333.2	40.3	315.0	41.7	32.755 **

Notes: n = Number of Teachers
SD - Denotes Standard Deviation

* $p < .05$
** $p < .01$

Table 8

Differences Between Morale Scores on Purdue Teacher Opinionaire for Vocational Teachers by Education Level and Teaching Location Alabama 1976

Education Level	Teaching Location						Analysis Mean Scores
	Area Vocational Center			High School			F Value
	n	Mean	SD	n	Mean	SD	
Less than Bachelors Degree	93	345.42	36.2	23	314.48	34.5	13.701**
Bachelors Degree	66	320.24	42.1	205	312.54	42.8	1.711
Masters Degree	67	328.25	39.6	285	316.81	40.5	4.369*
AA Certificate or Higher	11	340.18	41.16	49	315.35	47.5	2.562

Notes: n = Number of Teachers
SD - Denotes Standard Deviation
* $p < .05$
** $p < .01$

Hypothesis 2d: There are no significant differences in vocational teachers' morale as measured by the Purdue Teacher Opinionaire when compared by the activity of their advisory committee.

Current vocational education legislation emphasizes the need for including advisory committees at the local level to aid in the planning and evaluation process for local programs. The current data reflects that approximately 50% of the vocational teachers in the state have no formal advisory committee organized for their program. One of the purposes of the investigation was to determine if the teachers who had

formal advisory committees organized had higher morale than those who did not. The scores on the Purdue Teacher Opinionaire were grouped according to the activity of the teacher's advisory committee as shown by the codes in Table 9. The data were analyzed by single classification analysis of variance using subprogram ONEWAY from SPSS. The results of this analysis are presented in Table 9. The data presented in Table 9 were analyzed by Scheffe' tests to determine significant differences between mean scores.

Significant differences beyond the .05 level of significance existed for total morale scores and factor scores for satisfaction with teaching, teacher salary, teacher load, curriculum, teacher status, and school facilities and services.

The mean morale score for those teachers with no formal advisory committee organized was significantly lower than the mean morale scores of those with an advisory committee organized, thus Hypothesis 2d was rejected.

Mean morale scores for the factors of curriculum and school facilities and services were significantly lower for the no advisory committee group than each of the groups with a formal advisory committee. Differences beyond the .05 level existed in the group with no advisory committee and the group having a formal advisory committee which meets once per year. These differences existed on satisfaction with teaching, teacher salary, teacher load, and teacher status.

No significant differences existed for mean morale scores between groups having a formal advisory committee but varying amounts of activity. However significant differences did exist among the groups on

Table 9

Differences Between Morale Scores on Purdue Teacher Opinionaire Factors for Vocational Teachers by Advisory Committee Activity, Alabama 1976

Morale Factors	Advisory Committee Activity										Analysis Among Mean Scores
	1 (n = 397)		2 (n = 165)		3 (n = 54)		4 (n = 107)		5 (n = 65)		F Value
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	
Teacher Rapport With Principal	61.9	15.7	63.1	14.3	65.9	12.3	62.9	14.7	66.9	16.1	2.135
Satisfaction With Teaching....	70.8	7.4	71.4	6.7	73.1	5.6	72.3	7.3	74.2	5.9	4.307 **
Rapport Among Teachers.....	45.0	7.8	46.5	6.2	46.7	6.9	45.8	7.6	46.9	8.5	1.939
Teacher Salary.....	19.5	4.6	20.1	4.4	21.9	4.3	19.6	4.2	20.0	5.9	3.366 **
Teacher Load.....	33.2	5.9	34.1	5.6	35.0	5.2	34.4	4.8	35.0	5.9	2.794 *
Curriculum.....	14.6	3.8	15.8	3.4	15.9	3.4	15.9	3.2	15.8	4.2	5.599 **
Teacher Status.....	25.1	4.7	25.9	4.2	26.6	3.1	25.1	4.8	26.2	4.3	2.726 *
Community Support of Education	15.4	3.4	16.1	2.9	15.7	3.1	16.1	3.2	16.2	3.4	2.113
School Facilities and Services	12.7	4.0	13.8	3.6	14.7	3.8	14.2	3.6	13.7	4.7	6.248 **
Community Pressures.....	16.5	2.6	17.0	2.4	17.1	2.0	17.0	2.3	17.1	2.8	2.171
Total Morale.....	314.7	43.9	323.8	37.7	332.5	34.6	323.3	39.0	331.9	47.1	4.593 **

Notes: n = Number of Teachers
SD - Denotes Standard Deviation
Advisory Committee Activity Codes - 1. No formal advisory committee has been organized
2. A formal committee has been organized but no regular meetings are scheduled
3. A formal committee has been organized and meets once per year
4. A formal committee has been organized and meets twice per year
5. A formal committee has been organized and meets at least quarterly

* $p < .05$
** $p < .01$

factor scores. The mean factor score on satisfaction with teaching was significantly higher for the group of teachers with a formal advisory committee which met at least quarterly than the group of teachers whose formal advisory committee did not meet. A difference beyond the .05 level of significance existed between teachers whose advisory committee did not meet and those whose advisory committee met annually. The data indicate that teachers with higher morale are more likely to have active local advisory committees.

Hypothesis 2e: There are no significant differences in vocational teachers' morale as measured by the Purdue Teacher Opinionaire when compared by adult program organization.

The scores on the Purdue Teacher Opinionaire were categorized into two groups, one including teachers who have organized adult programs and the other including those who do not have adult programs. The data were analyzed by one-way classification analysis of variance. The results of this analysis are presented in Table 10.

No significant differences beyond the .05 level of significance existed for total morale scores. Morale scores were significantly higher, however, for teachers with adult programs on rapport among teachers, teacher salary, teacher status, and community support of education.

Based on the analysis of data the investigator did not reject Hypothesis 2e. The portion of the hypothesis related to rapport among teachers, teacher salary, teacher status, and community support of education was rejected.

Table 10

Differences Between Morale Scores on Purdue Teacher Opinionaire Factors for Vocational Teachers by Adult Program Organization, Alabama 1976

Morale Factors	Teachers With Organized Adult Programs (n = 369)		Teachers With No Organized Adult Programs (n = 429)		Analysis Among Mean Scores
	Mean	SD	Mean	SD	F Value
Teacher Rapport With Principal	63.2	15.6	62.8	14.7	.119
Satisfaction With Teaching....	71.9	7.2	71.4	7.0	.797
Rapport Among Teachers.....	46.4	7.9	45.2	7.0	4.661 *
Teacher Salary.....	20.2	4.8	19.6	4.5	4.241 *
Teacher Load.....	33.9	5.7	33.8	4.5	.035
Curriculum.....	15.4	3.9	15.1	3.5	1.740
Teacher Status.....	25.9	4.4	25.1	4.5	5.966 *
Community Support of Education	16.0	3.3	15.5	3.2	5.527 *
School Facilities and Services	13.6	4.1	13.2	3.9	1.427
Community Pressures.....	16.7	2.5	16.8	2.5	.201
Total Morale.....	323.2	45.0	318.5	39.2	2.435

Notes: n = Number of Teachers
SD - Denotes Standard Deviation

* $p < .05$

72 A

72 B

Hypothesis 2f: There are no significant differences in vocational teachers' morale as measured by the Purdue Teacher Opinionaire when compared by adequacy of equipment used in program.

The equipment used in a vocational program can greatly affect the quality of training received by the students. There is a wide range of quality in equipment used in the vocational programs in the state. Over 43% of the respondents indicated the equipment used in their program was inferior in quality and an additional 27% indicated the quality was comparable to that used in industry but not of sufficient quantity. Based on teachers' assessment, 70% of the programs either need additional equipment or upgrading in quality of equipment.

The study investigated differences in morale among teachers when compared by adequacy of equipment. The single classification analysis of variance was used for the analysis of this data. Table 11 presents the results of this analysis. Additionally the Scheffe' test for multiple comparisons was used to determine for significant differences between groups.

Significant differences beyond the .05 level of significance existed among groups for total morale scores and also for each of the 10 subfactors, therefore, Hypothesis 2f was rejected. Morale scores for those with the more adequate equipment were higher than those with equipment lacking in quality. This finding indicates that the conditions of equipment with which a teacher works may influence the morale of that teacher.

TABLE 11

DIFFERENCES BETWEEN MORALE SCORES ON PURDUE TEACHER OPINIONAIRE FACTORS FOR VOCATIONAL TEACHERS BY ADEQUACY OF EQUIPMENT, ALABAMA 1976

Morale Factors	Condition of Equipment								Analysis Among Mean Scores
	1 (n= 237)		2 (n= 213)		3 (n= 141)		4 (n= 208)		
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	
Teacher Rapport With Principal	66.8	13.7	62.7	15.3	63.5	12.7	58.6	16.9	11.442**
Satisfaction With Teaching	72.4	7.0	72.2	7.0	70.9	6.7	70.5	7.4	3.667*
Rapport Among Teachers	48.3	6.8	45.9	7.1	45.0	7.0	43.1	7.9	19.552**
Teacher Salary	21.4	4.4	19.9	4.6	19.7	4.3	18.1	4.7	19.423**
Teacher Load	35.6	5.2	33.8	5.6	33.7	5.3	31.8	5.8	17.760**
Curriculum	16.8	3.1	15.5	3.5	14.4	3.3	13.5	4.0	35.821**
Teacher Status	26.5	4.4	25.7	4.1	25.2	4.2	24.3	4.9	8.874**
Community Support of Education	16.6	3.3	15.8	3.0	15.7	2.9	14.8	3.5	12.150**
School Facilities and Services	15.9	3.2	13.1	3.6	13.1	3.4	10.8	3.7	80.224**
Community Pressures	17.2	2.2	16.7	2.5	16.2	2.8	16.5	2.5	5.728**
Total Morale	337.6	40.3	321.2	39.5	317.5	35.3	302.1	43.4	29.264**

Notes: n = Number of Teachers
SD - Denotes Standard Deviation
Adequacy of Equipment Codes -
1. Comparable in quality to that used by industry and in sufficient quantity for the size of the program.
2. Comparable in quality to that used by industry but not in sufficient quantity for the size of the program.
3. Inferior in quality to that used by industry but in sufficient quantity for the size of of the program.
4. Inferior in quality to that used by industry and also not of sufficient quantity for the size of the program.

* $p < .05$
** $p < .01$

Hypothesis 2g: There are no significant differences in vocational teachers' morale as measured by the Purdue Teacher Opinionaire when compared by adequacy of facilities used in program.

Facilities available for vocational education programs can enhance or limit the capabilities of the particular program. Teachers included in the sample indicated facilities used for vocational programs were of more satisfactory quality than the equipment available used in the programs. Over 46% of the teachers in this study indicated their facilities were sufficient in both quality and size for their current program. An additional 26% indicated their facilities were of good quality but were lacking in size. The remaining teachers responded that their facilities were inferior in quality.

The question investigated in the study was whether differences existed in morale when teachers viewed facilities as inferior. Responses from participants on the Purdue Teacher Opinionaire were grouped according to the teachers' views on the adequacy of facilities used in the program. Mean responses were then analyzed by a single classification analysis of variance followed by Scheffe' tests to determine significant differences between means. Table 12 presents the results of the single classification analysis.

Significant differences existed for total morale as well as for each subfactor, therefore, Hypothesis 2g was rejected. In each case where significant differences existed, teachers with more adequate facilities had the higher morale.

Table 12

Differences Between Morale Scores on Purdue Teacher Opinionaire Factors for Vocational Teachers by Adequacy of Facilities, Alabama 1976

Morale Factors	Adequacy of Facility								Analysis Among Mean Scores
	1 (n = 374)		2 (n = 212)		3 (n = 84)		4 (n = 135)		
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	F Value
Teacher Rapport With Principal	65.3	14.2	61.4	15.2	61.7	14.5	59.7	17.0	5.941 **
Satisfaction With Teaching....	72.7	6.6	71.1	7.2	70.6	6.9	70.1	7.8	6.000 **
Rapport Among Teachers.....	47.5	7.0	44.6	7.0	45.4	6.7	42.6	8.5	17.881 **
Teacher Salary.....	20.8	4.6	19.8	4.2	18.9	4.4	17.9	5.0	14.677 **
Teacher Load.....	35.5	5.2	32.8	5.5	33.3	4.9	31.3	6.2	24.462 **
Curriculum.....	16.5	3.3	14.8	3.6	14.3	3.1	13.0	4.0	36.281 **
Teacher Status.....	26.3	4.4	25.2	4.2	24.6	4.2	24.4	5.0	7.901 **
Community Support of Education	16.4	3.2	15.6	3.0	15.4	2.9	14.6	3.6	10.713 **
School Facilities and Services	15.1	3.5	12.9	3.4	11.8	3.7	10.2	3.6	73.378 **
Community Pressures.....	17.2	2.3	16.5	2.5	16.3	2.7	16.1	2.8	8.433 **
Total Morale.....	333.1	39.0	314.7	39.5	312.3	36.8	299.9	46.3	26.621 **

Notes: n = Number of Teachers
SD - Denotes Standard Deviation
Adequacy of Facility Codes - 1. Sufficient in quality and size for the current program
2. Sufficient in quality but too small for the current program
3. Inferior quality but adequate in size for the current program
4. Inferior quality and also too small for the current program

** $p < .01$

Hypothesis 2h: There are no significant differences in vocational teachers' morale as measured by the Purdue Teacher Opinionaire when compared by type of area where school is located.

Teachers participating in the study were asked to indicate type of geographical area in which the school they taught was located. The definition of each geographical area was included on the Personal Data Form. Table 13 presents the results of the analysis of mean morale scores when grouped by type of area where the school was located. No significant differences were found for total morale scored; however. differences existed for rapport among teachers, curriculum issues, teacher status, community support of education, and school facilities and services. Hypothesis 2h was not rejected, however, the portions of the hypothesis related to the factors listed above were rejected.

Teachers located in towns had significantly higher scores on rapport among teachers than did those in rural or urban areas. Teachers in rural areas had significantly lower scores on curriculum issues than either town, suburban, or urban teachers. Mean scores on the factor teacher status were significantly lower for urban teachers than teachers from rural and town areas. Teachers located in towns had significantly higher morale scores than rural or urban teachers on the factor community support of education. Rural teachers' scores on the factor school facilities and services were significantly lower than scores of teachers located in towns and suburban areas.

Hypothesis 3a: There are no significant relationships between vocational teachers' morale as measured by the Purdue Teacher Opinionaire and age.

A product moment correlation utilizing subprogram PEARSON CORR from the SPSS was used to measure the strength of realtionship between

TABLE 13

DIFFERENCES BETWEEN MORALE SCORES ON PURDUE TEACHER OPINIONAIRE FACTORS FOR VOCATIONAL TEACHERS BY GEOGRAPHICAL AREA WHERE SCHOOL IS LOCATED, ALABAMA 1976

Morale Factors	Geographical Area								Analysis Among Mean Scores
	Rural (n= 278)		Town (n= 256)		Suburban (n= 136)		Urban (n= 136)		F Scores
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	
Teacher Rapport With Prinicpal	63.1	14.8	62.9	15.2	62.3	15.2	63.4	15.6	.128
Satisfaction With Teaching	71.3	7.8	72.2	6.4	71.6	7.3	71.1	6.5	.879
Rapport Among Teachers	45.0	8.0	46.9	6.8	45.8	6.9	44.8	7.7	3.815**
Teacher Salary	19.9	4.8	20.0	4.5	19.9	4.7	19.4	4.6	.529
Teacher Load	33.2	5.8	34.1	5.5	34.2	5.8	34.3	5.3	1.792
Curriculum Issues	14.4	4.0	15.7	3.5	15.8	3.3	15.4	3.7	6.772**
Teacher Status	25.8	4.6	25.9	4.3	25.3	4.5	24.4	4.5	3.722**
Community Support of Education	15.5	3.5	16.3	2.9	15.8	3.2	15.2	3.3	3.915**
School Facilities and Services	12.7	4.1	13.7	3.9	14.0	3.7	13.3	3.7	4.943**
Community Pressures	16.4	2.7	16.8	2.4	16.9	2.5	17.1	2.4	2.424
Total Morale	317.4	45.2	324.4	40.0	321.7	40.8	318.6	40.1	1.361

Notes: n = Number of Teachers
SD - Denotes Standard Deviation

** $p < .01$

morale and age. The correlation coefficient for this analysis and other subparts of Hypothesis 3 are shown in Table 14.

Table 14

Correlations Between Morale Scores and Selected Independent Variable Measures for 806 Vocational Teachers, Alabama 1976

Variable	Correlation Coefficient
Age	.1845 **
Years Teaching Experience	.0622 *
Daily Student Load	-.1584 **
Total School Population in Grades 9-12	.0393

* $p < .05$
** $p < .01$

The coefficient of .1845 was found to be significant at the .01 level of significance, therefore, Hypothesis 3a was rejected. The magnitude of the relationship was small.

Following the computation of a correlation between morale and age, the ages of the teachers were grouped into four categories and morale scores were analyzed using the single classification analysis of variance with subprogram ONEWAY. This analysis revealed significant differences for total morale and seven of the 10 factor scores. In each case where significant differences existed, morale scores increased as the

age increased. The results of this analysis plus the correlation computed seem to indicate the relationship between morale and age is a linear relationship. The results of the single classification analysis are presented in Table 15.

Hypothesis 3b: There are no significant relationships between vocational teachers' morale as measured by the Purdue Teacher Opinionaire and years of teaching experience.

A product moment correlation utilizing subprogram PEARSON CORR from SPSS was used to measure the strength of relationship between morale and years of teaching experience. The correlation coefficient resulting from the correlation was .0622. The correlation coefficient was significant at .05 level, therefore, Hypothesis 3b was rejected. The magnitude of the relationship was very small.

The relationship between morale and experience was further analyzed with single classification analysis of variance using subprogram ONEWAY. No significant differences were revealed for total morale. However, the analysis did reveal significant differences on satisfaction with teaching, teacher load, teacher status, and community pressures. In each instance where significant differences existed, teachers having the most experience had the higher morale scores. Table 16 presents the results of the analysis.

Hypothesis 3c: There are no significant relationships between vocational teachers' morale as measured by the Purdue Teacher Opinionaire and daily student load.

The daily student load for vocational teachers in the state varies widely. This study sought to examine the relationship between the teachers' daily student load and morale. A product moment correlation

TABLE 15

DIFFERENCES BETWEEN MORALE SCORES ON PURDUE TEACHER OPINIONAIRE FACTORS FOR VOCATIONAL TEACHERS BY AGE, ALABAMA 9176

Morale Factors	Age								Analysis Among Mean Scores
	30 & Under (n= 194)		31-40 (n= 218)		41-50 (n= 229)		Over 50 (n= 165)		
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	
Teacher Rapport With Principal	59.5	16.5	62.8	14.4	63.9	14.3	65.8	14.8	5.718**
Satisfaction With Teaching	68.8	8.0	71.9	6.8	72.8	6.4	72.9	6.2	15.367**
Rapport Among Teachers	44.5	7.7	45.3	7.5	46.8	6.9	46.2	7.6	3.926**
Teacher Salary	19.1	4.7	19.2	4.6	20.2	4.5	21.0	4.7	6.962**
Teacher Load	32.1	5.7	34.0	5.4	34.4	5.6	34.8	5.6	8.712**
Curriculum	14.7	4.1	15.3	3.7	15.6	3.4	15.2	3.6	2.567
Teacher Status	24.7	4.4	25.0	4.7	25.7	4.5	26.9	4.0	8.819**
Community Support of Education	15.3	3.6	15.8	3.2	15.8	3.2	16.2	3.0	2.422
School Facilities and Services	13.2	4.0	13.5	3.9	13.5	3.9	13.1	4.2	.337
Community Pressures	15.8	2.6	16.7	2.6	17.0	2.3	17.4	2.3	13.112**
Total Morale	307.6	45.3	319.7	40.8	325.9	39.6	329.5	39.7	10.144**

Notes: n = Number of Teachers
SD - Denotes Standard Deviation

** $p < .01$

Table 16

Differences Between Morale Scores on Purdue Teacher Opinionaire Factors for Vocational Teachers by Years of Experience, Alabama 1976

Morale Factors	Years of Experience								Analysis Among Mean Scores
	4 and Under (n = 167)		5 - 15 (n = 374)		16 - 25 (n = 170)		Over 25 (n = 95)		
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	F Value
Teacher Rapport With Principal	62.8	15.4	62.2	15.6	64.1	14.0	64.0	14.4	.756
Satisfaction With Teaching....	69.7	8.0	71.6	7.0	72.6	6.2	73.3	6.2	6.919 **
Rapport Among Teachers.....	46.3	7.4	45.6	7.8	45.8	7.1	44.8	6.6	.859
Teacher Salary.....	19.9	4.7	19.6	4.7	20.1	4.5	20.3	4.5	.936
Teacher Load.....	32.7	5.7	33.8	5.7	34.4	5.3	34.7	5.7	3.635 *
Curriculum.....	15.3	3.7	15.3	3.9	15.4	3.4	14.6	3.6	1.162
Teacher Status.....	25.0	4.6	25.2	4.5	25.9	4.4	26.7	4.0	3.724 *
Community Support of Education	15.9	3.5	15.7	3.3	15.8	3.2	15.7	3.1	.329
School Facilities and Services	13.4	4.1	13.4	3.9	13.6	3.9	12.5	3.9	1.726
Community Pressures.....	16.2	2.7	16.8	2.5	16.9	2.4	17.3	2.2	4.650 **
Total Morale.....	317.3	45.0	319.5	42.8	324.5	39.3	323.9	38.7	1.149

Notes: n = Number of Teachers
SD - Denotes Standard Deviation

* $p < .05$
** $p < .01$

utilizing subprogram PEARSON CORR from SPSS was used to measure the strength of this relationship. The correlation coefficient resulting from the correlation was -.1584. The coefficient was significant at the .01 level. The indication was that daily student load was inversely related in a significant manner to morale, therefore, Hypothesis 3c was rejected. The correlation coefficient indicated that as daily student load increased the morale of vocational teachers tended to decrease.

The relationship between morale and daily student load was also analyzed with single classification analysis of variance using subprogram ONEWAY. Significant differences were revealed for total morale and the factors rapport among teachers, teacher load, curriculum, community support of education, and school facilities and services. This analysis gave additional support for the inverse relationship revealed in the correlation. In each case where significant differences existed the teachers with the lower daily student load had the higher morale scores. Table 17 presents the findings from the analysis of variance.

Hypothesis 3d: There are no significant relationships between vocational teachers' morale as measured by the Purdue Teacher Opinionaire and total school population in grades 9-12.

The relationship between size of school and morale was examined by correlational analysis and analysis of variance. The correlation coefficient resulting from product moment correlation of morale scores and total school population in grades 9-12 was .0393. This coefficient was not significant; therefore, Hypothesis 3d was accepted as stated.

Table 18 presents the results of the single classification analysis of variance when school population was categorized. Significant differences existed for total morale as well as for rapport among

Table 17

Differences Between Morale Scores on Purdue Teacher Opinionaire Factors for Vocational Teachers by Daily Student Load, Alabama 1976

Morale Factors	Daily Student Load								Analysis Among Mean Scores
	40 and Under (n = 186)		41 - 70 (n = 244)		71 - 100 (n = 202)		Over 100 (n = 174)		
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	F Value
Teacher Rapport With Principal	64.4	16.3	63.9	14.5	61.5	14.8	61.8	14.9	1.884
Satisfaction With Teaching....	71.4	7.4	71.9	7.2	72.0	6.5	71.0	7.2	.752
Rapport Among Teachers.....	48.2	7.1	45.8	7.8	44.6	6.9	44.3	7.3	11.013 **
Teacher Salary.....	20.2	4.8	20.0	4.5	19.8	4.6	19.4	4.7	1.032
Teacher Load.....	35.3	5.0	34.4	5.4	33.8	5.4	31.4	6.1	16.617 **
Curriculum.....	16.2	3.4	15.8	3.6	14.4	3.7	14.3	3.9	14.054 **
Teacher Status.....	25.5	4.7	25.4	4.7	25.7	4.2	25.3	4.4	.335
Community Support of Education	16.3	3.3	15.9	3.2	15.5	3.2	15.3	3.3	3.889 **
School Facilities and Services	14.4	4.1	14.0	3.9	12.6	4.0	12.6	3.6	9.156 **
Community Pressures.....	17.1	2.4	16.8	2.6	16.6	2.4	16.5	2.6	2.132
Total Morale.....	328.6	42.8	324.0	41.9	316.4	39.6	311.8	42.4	6.137 **

Notes: n = Number of Teachers
SD - Denotes Standard Deviation

** $p < .01$

teachers, curriculum issues, teacher status, community support of education, school facilities and services, and community pressures. The results of the analysis of variance indicate that the relationship may not be linear which could have accounted for a non-significant correlation coefficient. Teachers in schools with 250 or less in grades 9-12 had significantly lower overall morale scores than schools with 251-500, 501-750, or 751-1000 but not significantly lower than teachers in schools with more than 1000 in grades 9-12. Significant differences also existed between teachers in schools with 501-750 students in the top four grades and those in schools with over 1000. The teachers in schools with 501-750 in grades 9-12 had the higher morale scores.

Hypothesis 4a: There are no significant differences in vocational teachers' change orientation as measured by the Change Orientation Instrument when compared by vocational education service area.

The scores on the Change Orientation Instrument were grouped according to vocational education service area and analyzed by single classification analysis of variance using subprogram ONEWAY. The data were analyzed by Scheffe' tests to determine for significant difference between groups. Table 19 reflects the mean scores and one-way analysis.

Significant differences beyond the .05 level of significance existed among the service areas, therefore, Hypothesis 4a was rejected. The Scheffe' multiple comparisons test revealed that the scores of agribusiness education teachers were significantly lower than the other groups. No significant differences were found between other service areas.

Table 18

Differences Between Morale Scores on Purdue Teacher Opinionaire Factors for Vocational Teachers by Total Student Population Grades 9-12, Alabama 1976

Morale Factors	Student Population										Analysis Among Mean Scores
	250 & Under (n = 118)		251-500 (n = 228)		501-750 (n = 156)		751-1000 (n = 110)		Over 1000 (n = 194)		F Value
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	
Teacher Rapport With Principal	60.5	15.3	63.3	15.9	65.3	14.0	62.8	14.2	62.3	15.3	1.813
Satisfaction With Teaching....	70.7	8.4	71.2	7.5	72.9	6.7	72.4	6.1	71.1	6.4	2.574*
Rapport Among Teachers.....	44.4	7.9	46.9	7.5	47.3	7.1	45.8	6.8	43.9	7.2	7.339*
Teacher Salary.....	19.1	4.6	20.1	4.8	20.1	4.7	20.3	4.5	19.6	4.6	1.428
Teacher Load.....	33.4	5.6	33.8	5.8	34.1	5.7	33.8	5.8	33.9	5.5	.298
Curriculum.....	13.8	3.9	15.1	3.8	15.7	3.4	15.5	3.6	15.7	3.6	6.280**
Teacher Status.....	25.1	4.4	25.9	4.7	26.1	4.1	26.1	4.1	24.5	4.6	4.562**
Community Support of Education	15.1	3.2	16.0	3.5	16.2	2.9	15.9	2.7	15.5	3.5	2.451*
School Facilities and Services	12.2	4.2	13.2	4.0	13.3	4.0	13.9	3.8	13.9	3.7	4.371**
Community Pressures.....	16.3	2.9	16.5	2.4	17.0	2.6	17.0	2.2	16.9	2.5	2.386*
Total Morale.....	310.5	45.0	322.0	45.0	328.1	38.3	323.4	39.2	317.3	40.1	3.457**

Notes: n = Number of Teachers
SD - Denotes Standard Deviation
* $p < .05$
** $p < .01$

Table 19

Analysis of Change Orientation Scores of Vocational Teachers by Service Areas Alabama 1976

Service Area	Change Orientation Scores	
	Mean	Standard Deviation
Agribusiness (n = 156)	96.1	14.0
Home Economics (n = 213)	101.8	11.9
Distributive Education (n = 85)	101.6	14.4
Trade and Industrial (n = 189)	100.6	11.9
Business and Office (n = 162)	101.3	12.4
Total Sample	100.3	12.8

Notes: n = Number of Teachers
F Value for the Means = 5.417
* $p < .01$

Hypothesis 4b: There are no significant differences in vocational teachers' change orientation as measured by the Change Orientation Instrument when compared by level of education completed.

Vocational teachers participating in the study were asked to indicate the level of education completed by checking one of the following categories: Less than Bachelors Degree, Bachelors Degree, Masters Degree, AA Certificate, Education Specialist, and Doctor's Degree. Due to the close similiarity of AA Certificate and Education Specialist Degree and the fact that only eight teachers had degrees equivalent to or higher than an Education Specialist Degree, the categories of AA Certificate, Education Specialist, and Doctor's Degree were combined

for analysis purposes. Table 20 reflects the analysis of change orientation scores by level of education completed. The single classification analysis of variance revealed no significant differences among scores when compared by level of education. This analysis supports the hypothesis as stated.

Table 20

Analysis of Change Orientation Scores of Vocational Teachers by Level of Education Alabama 1976

Level of Education	Change Orientation Scores	
	Mean	Standard Deviation
Less than a Bachelors Degree (n = 116)	100.9	11.7
Bachelors Degree (n = 277)	100.2	12.5
Masters Degree (n = 352)	99.9	13.1
AA Certificate or Higher (n = 60)	101.5	15.2

Notes: n = Number of Teachers
F Value for the Means = .377
$p > .05$

Hypothesis 4c: There are no significant differences in vocational teache's' change orientation as measured by the Change Orientation Instrument when compared by area vocational centers and regular high schools.

Table 21 presents the data relative to the change orientation scores by the location of vocational teachers at area vocational centers and regular high schools. A single classification analysis of variance

was computed for the data and an F value of .929 was obtained. This was not significant at the .05 level of significance, therefore, Hypothesis 4c was not rejected.

Table 21

Analysis of Change Orientation Scores of Vocational Teachers by Teaching Location, Alabama 1976

Location	Change Orientation Scores	
	Mean	Standard Deviation
Area Vocational Center (n = 243)	100.5	12.0
Regular High School (n = 562)	100.1	13.2

Notes: n = Number of Teachers
F Value for the Means = .170
$p > .05$

Hypothesis 4d: There are no significant differences in vocational teachers' change orientation as measured by the Change Orientation Instrument when compared by the activity of their advisory committees.

The data related to change orientation scores grouped according to the activity of the teachers' advisory committees are presented in Table 22. The activity of the advisory committee was based on the vocational teachers' response to a question related to advisory committees on the Personal Data Form included as a part of the instrumentation. A single classification analysis of variance computed for the data did no reveal any significant differences, therefore, Hypothesis 4d was not rejected.

Table 22

Analysis of Change Orientation Scores of Vocational Teachers by Activity of Advisory Committee Alabama 1976

Activity of Committee	Change Orientation Scores	
	Mean	Standard Deviation
No formal advisory committee has been organized (n = 397)	99.3	13.0
A formal committee has been organized but no regular meetings are scheduled (n = 165)	100.3	13.3
A formal committee has been organized and meets once per year (n = 54)	102.6	10.9
A formal committee has been organized and meets twice per year (n = 107)	101.8	11.9
A formal committee has been organized and meets at least quarterly (n = 65)	102.0	14.6

Notes: n = Number of Teachers
F Value for the Means = 1.613
$p > .05$

Hypothesis 4e: There are no significant differences in vocational teachers' change orientation as measured by the Change Orientation Instrument when compared by adult program organization.

The scores on the Change Orientation Instrument were categorized into two groups, one including teachers who had organized adult programs and the other including those who did not have adult programs.

The data were analyzed by one-way classification analysis of variance. No significant difference existing beyond the .05 level of significance existed for change orientation scores which supported Hypothesis 4e as stated. These data are presented in Table 23.

Table 23

Analysis of Change Orientation Scores of Vocational Teachers by Adult Program Organization Alabama 1976

	Change Orientation Scores	
	Mean	Standard Deviation
Organized Adult Programs (n = 369)	99.6	12.9
No Organized Adult Programs (n = 429)	100.9	12.9

Notes: n = Number of Teachers
F Value of the Means = 2.111
$p > .05$

Hypothesis 4f: There are no significant differences in vocational teachers' change orientation as measured by the Change Orientation Instrument when compared by adequacy of equipment used in program.

Data presented in Table 24 indicate no significant differences in change orientation scores when compared by adequacy of equipment used in the vocational program. The analysis supported Hypothesis 4f as stated. Teachers with inferior equipment did have lower change orientation scores although the difference was not significant.

Table 24

Analysis of Change Orientation Scores of Vocational Teachers by Adequacy of Equipment Alabama 1976

Adequacy of Equipment	Change Orientation Scores Mean	Standard Deviation
Comparable in quality to that used by industry and in sufficient quantity for the size of the program (n = 237)	101.2	11.6
Comparable is quality to that used by industry but not in sufficient quantity for the size of the program (n = 213)	101.2	12.1
Inferior in quality to that used by industry but in sufficient quantity for the size of the program (n = 141)	98.6	12.3
Inferior in quality to that used by industry and also not of sufficient quantity for the size of the program (n = 208)	99.5	15.1

Notes: n = Number of Teachers
F Value of the Means = 1.949
$p > .05$

Hypothesis 4g: There are no significant differences in vocational teachers' change orientation as measured by the Change Orientation Instrument when compared by adequacy of facilities used in program.

Table 25 presents the data related to change orientation scores according to adequacy of the facilities used for the vocational program. A single classification analysis of variance was computed for the data and an F value of .524 was obtained which was not significant, therefore, Hypothesis 4g was not rejected.

Table 25

Analysis of Change Orientation Scores of Vocational Teachers by Adequacy of Facilities Alabama 1976

Adequacy of Facilities	Change Orientation Scores	
	Mean	Standard Deviation
Sufficient in quality and size for the current program (n = 374)	100.5	12.1
Sufficient in quality but too small for the current program (n = 212)	100.8	12.8
Inferior quality but adequate in size for the current program (n = 84)	99.5	13.1
Inferior quality and also too small for the current program (n = 135)	99.3	14.8

Notes: n = Number of Teachers
F Value of the Means = .524
$p > .05$

Hypothesis 4h: There are no significant differences in vocational teachers' change orientation as measured by the Change Orientation Instrument when compared by type of geographical area where school is located.

Table 26 presents the results of the analysis of mean change orientation scores when grouped by type of area where the school is located. No significant differences were found in the overall analysis. However, the F value did approach significance and the multiple comparison tests did reveal a significant difference between those teachers in rural

areas and those in town. Teachers located in rural areas had significantly lower change orientation scores than teachers in schools located in town. The differences were not great enough to warrant the rejection of Hypothesis 4h as stated.

Table 26

Analysis of Change Orientation Scores of Vocational Teachers by Geographical Area Where School is Located, Alabama 1976

Geographical Area	Change Orientation Scores	
	Mean	Standard Deviation
Rural (n = 278)	98.8	12.9
Town (n = 256)	101.5	12.5
Suburban (n = 136)	100.3	12.1
Urban (n = 136)	100.9	13.9

Notes: n = Number of Teachers
F Value of the Means = 2.168
$p > .05$

Hypothesis 5: There are no significant relationships between vocational teachers' change orientation as measured by the Change Orientation Instrument and age, years of teaching experience, daily student load, and total school population in grades 9-12.

A product moment correlation utilizing subprogram PEARSON CORR from the SPSS was used to measure the strength of relationship between change orientation and age, years of teaching experience, daily student load, and total school population in grades 9-12. Table 27 presents a

summary of the correlations found in the analysis of each of the subparts of Hypothesis 5. No significant relationships existed between change orientation scores and any of the subparts in Hypothesis 5, therefore, Hypothesis 5 was not rejected.

Table 27

Correlations Between Change Orientation Scores and Selected Independent Variable Measures for 806 Vocational Teachers, Alabama 1976

Variable	Correlation Coefficient
Age	.0537
Years Teaching Experience	.0261
Daily Student Load	-.0031
Total School Population in Grades 9-12	.0434

Note: $p > .05$

V. SUMMARY, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

The quality of vocational education in the future will be very much dependent upon the adjustment of programs to meet the changing needs of students. The success or failure of these adjustments depend to a great degree upon teachers' predisposition or attitude toward change and enthusiasm displayed toward achievement of program goals.

This study was undertaken to investigate the morale and change orientation of vocational education teachers in Alabama and to ascertain if a relationship existed between these variables. The purposes of the study were stated as four broad questions with several subparts.

Summary of the Findings

The study consisted of 936 vocational education teachers teaching at the secondary level in Alabama public school systems who had been employed for at least one full year. There were 202 teachers of agribusiness education, 239 teachers of home economics education, 88 teachers of distributive education, 233 trade and industrial education teachers, and 174 teachers of business and office education included in the study.

The Purdue Teacher Opinionaire and Russell's Change Orientation Instrument were selected for use in the research. Additionally, a survey form developed by the researcher was used for collecting biographical data on individuals. These instruments were administered to

selected teachers at the annual conference for each vocational education service area. Instruments for those selected but not in attendance at the conference were mailed to them. Data provided by respondents on the three instruments were coded and punched on data cards. Statistical computations were then made on the IBM 370 model 158 computer. The findings of the study indicated there is a small relationship between morale and change orientation. This relationship existed for total morale and each subfactor score. The largest measured association was between change orientation and satisfaction with teaching. Other major findings were as follows:

1. There were significant differences in the morale scores among vocational teachers when grouped according to vocational education service area. Mean morale scores for agribusiness teachers tended to be lower than the other service areas. Scores of trade and industrial education teachers and business and office education teachers tended to be the higher mean scores of all service areas.
2. There were significant differences in the morale scores among vocational teachers when compared by level of education completed. Mean morale scores of those with less than a bachelors degree were significantly higher than those in higher education level categories. There were no significant differences in morale scores for teachers with a bachelors, masters, or AA certificate and higher.
3. There were significant differences in morale scores between teachers who were located at area vocational centers

and those located in the regular high schools. Significant differences existed in total morale and all subfactors except satisfaction with teaching. In each case where signficant differences existed, teachers located in an area vocational center had the higher morale score. Teachers in area vocational centers had higher morale regardless of service area or educational level.

4. There were significant differences in morale scores among the vocational teachers when grouped according to the amount of activity of their advisory council. Significant differences existed for total morale as well as the factor scores for satisfaction with teaching, teacher salary, teacher load, curriculum status, and school facilities and services. The morale scores of those with no formal advisory committee organized tended to be lower than those with advisory committees.

5. There were no significant differences in total morale scores between those teachers with organized adult programs and those without an organized program. However, significant differences did exist for the factors rapport among teachers, teacher salary, teacher status, and community support of education. On each factor where significant differences existed, those with organized adult programs had the higher morale scores.

6. There were significant differences in the morale scores among the vocational teachers when compared by the

adequacy of equipment available for use in their program. Teachers with the more adequate equipment had the higher morale scores.

7. There were significant differences in the morale scores among vocational teachers when grouped according to the adequacy of facilities used in their program. Teachers with the more adequate facilities tended to have higher morale scores.

8. Teachers in rural areas had significantly lower morale scores on curriculum issues than either town, suburban, or urban teachers. Mean morale scores for the teacher status measure were significantly lower for urban teachers than teachers from rural areas or town. Teachers located in towns had significantly higher morale scores than rural or urban teachers on the measure of community support of education. Rural teachers' morale scores on the adequacy of school facilities and services were significantly lower than scores of teachers located in towns and suburban areas.

9. Significant relationships were found between morale scores and age, years teaching experience, and daily student load. The relationship between morale and total school population in grades 9-12 was not found to be significant. The relationship between morale scores and daily student load was found to be a negative correlation. That is, as the daily student load increases, the morale scores tend to decline.

10. Significant differences in change orientation scores existed among the teachers by vocational education teaching service areas. Change orientation scores of agribusiness teachers were significantly lower than teachers in the other service areas.

11. There were no significant differences in change orientation scores of vocational education teachers when grouped by level of education completed.

12. Change orientation scores of teachers located in area vocational centers were not significantly different than the change orientation scores of those teachers teaching in regular high schools.

13. Analysis of change orientation scores failed to reveal any significant differences when scores were grouped according to the activity of the teacher's advisory council.

14. The change orientation scores of teachers who have organized adult programs did not differ significantly from those teachers who do not have an organized adult program.

15. There were no significant differences found in change orientation scores when grouped according to the adequacy of equipment available for use in the vocational program.

16. No significant differences existed in change orientation scores when grouped according to the adequacy of facilities used in the teaching program.

17. There were no significant differences in change orientation among vocational teachers in rural areas, towns, suburban, and urban areas.

18. No significant relationships were found between change orientation scores and age, years of teaching experience, daily student load, and total school population in grades 9-12.

Conclusions

The findings of this study present evidence to suggest certain logical conclusions and directions for further research. The conclusions made from the study are as follows:

1. Vocational teachers with high morale also tended to have more positive attitudes toward change than teachers with low morale.

2. Morale and change orientation differed among vocational education service teaching fields. Agribusiness education teachers tended to have lower morale and be less oriented toward change than the other vocational education service teaching fields. Trade and industrial education teachers and business and office education teachers generally had higher morale than teachers in the other vocational education teaching fields.

3. Teachers with less than a bachelors degree tended to have higher morale than professionally prepared teachers (those with a bachelors degree and above).

4. Teachers located in area vocational centers tended to have higher morale than those located in regular high schools.

5. Teachers with higher morale tended to have advisory councils that are more active than those with lower morale.

6. The more adequate facilities and equipment used in a vocational program, generally, the higher the teachers' morale.

7. Morale generally increased as the age of the teacher increased.

8. Morale of vocational teachers tended to decline as the daily student load of teachers increased.

9. Morale of vocational teachers did not differ significantly by total population of the schools.

Implications in Relation to the Literature

The findings of the present study should contribute to the body of literature on teacher morale and change orientation research and to the understanding of these complicated constructs. Some of the findings relate back to studies reviewed from the body of literature dealing with teacher morale and change orientation. A brief recap of the findings are presented here in an effort to further support previous findings or to raise questions because of inconsistent findings.

The present study indicated significant differences between vocational fields on total morale and each factor score except teacher status. Forrest (1970) found significant differences to exist between various vocational education fields on seven factors as well as total morale.

However, Johnson et al. (1969) found significant differences between the vocational fields they studied on the teacher status factor of the PTO only.

Johnson et al. (1969) found a significant relationship between age and the teacher salary factor of the PTO. Forrest (1970) identified a significant relationship between age and teacher salary factor of the PTO plus five other factors. The present study found significant differences on total morale and seven factors of the PTO. Morale increased with age in each instance.

Redefer (1964) and Richardson (1963) found no significant relationship between years of teaching experience and the factors: teacher rapport with principal and satisfaction with teaching. Bentley and Rempel (1962) found that morale was lower for teachers with fewer than 10 years of teaching experience. Forrest (1970) found significant differences on morale scores among age grouping for the factors: teacher rapport with principal and satisfaction with teaching. However, Forrest (1970) did not find significant differences on total morale. The present study supported these findings. No significant differences were found on total morale though significant differences existed on four factors of the PTO.

Size of school related significantly to six of the PTO sub-scores in the study by Johnson et al. (1969). Forrest (1970) found that morale increased on curriculum issues factor and total morale with increasing school size. The present study found significant differences on seven factors of the PTO plus total morale. However, the study did not indicate the same relationship reported by Forrest. The highest morale

for the present study was found in schools with populations 501 to 750. Lower morale was indicated for schools smaller than this category and also schools larger.

The present research found significant differences between educational level on seven factors of the PTO and total morale. Teachers with less than a bachelors degree had higher morale than those with a bachelors degree or above. The findings of the present study were supportive of Forrest (1970) on the variable education level.

Forrest (1970) indicated that daily student load was inversely related to the morale factor teacher load (as expected) and community pressures. The present study found significant differences to exist for five factors on the PTO and also total morale. Morale declined as daily student load became larger.

The literature search did not reveal studies which investigated the relationship between morale and change orientation nor a comparison of morale by the following variables:

1. whether teacher was located at an area vocational center or regular high school
2. activity of local advisory committee
3. adult program organization
4. geographical area where school was located

The present study found significant differences in change orientation among vocational education teaching fields. Review of literature did not reveal studies to support or contradict the present findings.

Hood (1975) concluded that the longer one teaches, the less change oriented one tends to become and younger teachers tend to be more change

oriented than older teachers. The present study did not support Hood's conclusions.

Recommendations

The findings of the study revealed that certain personal and situational variables were associated with morale and change orientation. The following recommendations are made based on the findings of the study:

1. That a study be conducted to investigate the relationship between morale and/or change orientation of local vocational administrators and vocational education teachers.
2. That additional studies be made to determine the underlying reasons for differences in morale and change orientation among teachers of various vocational education teaching fields.
3. That more studies investigating the relationship between morale/change orientation and other variables be conducted to assist administrators in improving morale and attitude toward change among teachers.
4. That teachers with higher morale and a more positive orientation toward change be identified and used to conduct pilot or exemplary programs and other purposeful changes in vocational education because of the relationship shown between morale and change orientation.
5. That agribusiness education supervisors study the possible factors contributing to relative low morale of agribusiness education teachers, especially those related to curriculum issues.

6. That further research give consideration to results of changing teacher load on teacher morale.

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Appendix A

CHANGE ORIENTATION INSTRUMENT

Instructions:

The following is a survey of your opinions regarding various statements about vocational-technical education. There are no right or wrong responses, so do not hesitate to mark the statements frankly. In answering each statement we want your personal opinion. We have tried to cover many different and opposing points of view; you may find yourself agreeing strongly with some of the statements, disagreeing just as strongly with others, and perhaps uncertain about others. Whether you agree or disagree with any statement, you can be sure that many other people feel the same as you do. Please be sure you DO NOT OMIT ANY STATEMENT.

Mark your responses by circling your choice in the right columns, using the following code:

1 = Disagree Very Much (DVM)
2 = Disagree on the Whole (DW)
3 = Disagree a Little (DL)
4 = Agree a Little (AL)
5 = Agree on the Whole (AW)
6 = Agree Very Much (AVM)

Item Number	Statement	Response					
		DVM	DW	DL	AL	AW	AVM
1.	Schools can't do much to develop positive attitudes toward work.	1	2	3	4	5	6
2.	We now have more vocational programs than we need for the disadvantaged.	1	2	3	4	5	6
3.	Vocational education can do little to alleviate the problems of disadvantaged people.	1	2	3	4	5	6

		DVM	DW	DL	AL	AW	AVM
4.	Students can benefit little from occupational education in the elementary grades.	1	2	3	4	5	6
5.	I think there's no harm in starting occupational preparation for young school children.	1	2	3	4	5	6
6.	Early occupational education may stimulate a better attitude toward school work in later years.	1	2	3	4	5	6
7.	Vocational teachers can make a real contribution to occupational education at the elementary level.	1	2	3	4	5	6
8.	There is no need in the elementary curriculum for the addition of occupational education.	1	2	3	4	5	6
9.	I find that individualized instruction using behavioral objectives is valuable in helping the student to succeed.	1	2	3	4	5	6
10.	I believe it is more important to work with the entire class than to spend a lot of time with individuals.	1	2	3	4	5	6
11.	I accept the idea that individualized instruction using behavioral objectives allows students to experience success more often.	1	2	3	4	5	6
12.	I regularly use behavioral objectives with individualized learning experiences to help my students develop to their potential.	1	2	3	4	5	6
13.	I argue that increased emphasis on adult vocational programs would eventually reduce inner-city unemployment	1	2	3	4	5	6

		DVM	DW	DL	AL	AW	AVM
14.	As part of a teaching team I could spend more time developing creativity, responsibility, and habits of inquiry in students.	1	2	3	4	5	6
15.	I teach my classes without assistance and discourage others from helping.	1	2	3	4	5	6
16.	I would greatly dislike being a member of a differentiated teaching team.	1	2	3	4	5	6
17.	I uphold the differentiated team teaching concept as permitting a natural exchange of ideas.	1	2	3	4	5	6
18.	I do not work well enough with others to make differentiated team teaching work.	1	2	3	4	5	6
19.	I'm convinced that differentiated team teaching is a waste of time.	1	2	3	4	5	6
20.	Use of differentiated team teaching would allow me to put more varied content into my lessons.	1	2	3	4	5	6
21.	I say that differentiated team teaching is asking too much of established teachers.	1	2	3	4	5	6

Appendix B

PERSONAL DATA SHEET

Please check the appropriate box or write in your answer to the following questions.

1. Service area in which you are presently teaching.

   1.1 ( ) Agribusiness Education
   1.2 ( ) Home Economics Education
   1.3 ( ) Distributive Education
   1.4 ( ) Trade and Industrial Education
   1.5 ( ) Business and Office Education

2. Education completed.

   2.1 ( ) Less than Bachelors Degree
   2.2 ( ) Bachelors Degree
   2.3 ( ) Masters Degree
   2.4 ( ) AA Certificate
   2.5 ( ) Education Specialist
   2.6 ( ) Doctor's Degree

3. Currently teach at:

   3.1 ( ) Area Vocational Center
   3.2 ( ) High School

4. Advisory committee organization for your subject area:

   4.1 ( ) No formal adivsory committee has been organized.
   4.2 ( ) A formal committee has been organized but no regular meetings are scheduled.
   4.3 ( ) A formal committee has been organized and meets once per year.
   4.4 ( ) A formal committee has been organized and meets twice per year.
   4.5 ( ) A formal committee has been organized and meets at least quarterly.

5. Do you have an organized adult program for the area in which you teach?

   5.1 ( ) Yes
   5.2 ( ) No

6-7. Indicate your age in the space below.

_____

8-9. Indicate in the space below the number of years teaching experience that you have.

_____

10-12. Indicate in the space below the total number of students that you teach per day (Daily Student Load).

_____

13-16. Indicate the total number of students in grades 9-12 that are enrolled in your school. If you are located at an area vocational center indicate the total number of students served during the day.

_____

17. Adequacy of equipment in the program which you teach is:

17.1 ( ) Comparable in quality to that used by industry and in sufficient quantity for the size of the program.
17.2 ( ) Comparable in quality to that used by industry but not in sufficient quantity for the size of the program.
17.3 ( ) Inferior in quality to that used by industry but in sufficient quantity for the size of the program.
17.4 ( ) Inferior in quality to that used by industry and also not of sufficient quantity for the size of the program.

18. Adequacy of facilities for the program in which you teach is:

18.1 ( ) Sufficient in quality and size for the current program.
18.2 ( ) Sufficient in quality but too small for the current program.
18.3 ( ) Inferior quality but adequate in size for the current program.
18.4 ( ) Inferior quality and also too small for the current program.

19. Type of area in which your school is located:

19.1 ( ) Rural (5,000 population or less)
19.2 ( ) Town (more than 5,000 and less than 50,000 and not within 25 miles of a city of more than 50,000)

19.3 ( ) Suburban (more than 5,000 and less than 50,000 and within 25 miles of a city of more than 50,000)
19.4 ( ) Urban (more than 50,000)

It is the official policy of the Alabama State Department of Education, including postsecondary institutions under the control of the State Board of Education, that no person in Alabama shall, on the grounds of race, color, handicap, sex, religion, creed, national origin, or age, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program, activity, or employment.